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ABSTRACT OF

A Presidential Address

ENTITLED

MORGAGNI TO VIRCHOW: AN EPOCH IN THE HISTORY OF MEDICINE.

Delivered at the Opening Meeting of the Glasgow Medico-Chirurgical Society on Oct. 6th, 1905,

BY JOHN LINDSAY STEVEN, M.D. GLASG., F.F.P.S. GLASG.,

PRESIDENT OF THE SOCIETY, AND HONORARY LIBRARIAN TO THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

GENTLEMEN,—Dr. Samuel Johnson defines an epoch as "the time at which a new computation is begun; the time from which dates are numbered." In thinking over the portion of medical history to which I am about to direct your attention I had chosen for my title "A Chapter in Medical History," but further reflection convinced me that the word epoch more accurately described the period. Epochs are the milestones of history, the finger-posts on the road of human progress. The history of medicine, like the history of the universe and of the human race, has had its epochs, and on one of these, as I believe it to be, I am about to address you. Different students may form different opinions as to what constitutes a medical epoch, according to the view they take of what is important or fundamental in medical art and science, but a general agreement will, however, be found to exist as to the great periods of progress. A useful table of the chief epochs of medical history from the time of the Argonauts, 1263 B.C., to the end of the eighteenth century, by the great German historian of the healing art, Kurt Sprengel, is to be found in his first volume. Having taken Sprengel's table as a guide I have now to present to you the following brief statement of the great periods of medical history in the Christian era.[1]

I.—THE EPOCH OF GALEN (131–200 A.D.).

The influence of Galen on the actual practice of medicine lasted longer, perhaps, than that of any other practitioner of the healing art, not even excepting Hippocrates (459–377 B.C.), whom he and all physicians since have owned as master. The teaching of Galen, in its therapeutical aspects especially, appealed to the genius of the Arabian conquerors of Eastern and Southern Europe in the days of their victory and power. Under the fostering care of the caliphs the precepts of Galen dominated the practice of medicine down at least to the revival of learning in the fifteenth and sixteenth centuries.

II.—THE EPOCH OF MUNDINUS (MONDINO DE LIUCCI) (1275–1326).

The period with which I have associated the name of this great man marks the beginning of the end of the Græco-Arabian supremacy and the return of medical men to the study of nature. Sprengel points out that anatomy was the branch of medicine which was least cultivated by the Arabs. The practice of human dissection not only defiled the Mussulman but was contrary to the dogmas of his religion, so that even the request of a physician for the permission of his priest to perform a necropsy was denounced as a violation of the law.[2] The genius of the Christian religion also was held to be opposed to human dissection. The Bull of Boniface VIII., "De Sepulturis," issued in 1300, prohibiting the Crusaders from evisceration, or cooking, or boiling any part of the human body, so that the bones might be sent home for burial in holy ground, also, though no doubt indirectly, operated against the practical study of anatomy.[3]

In the face of such almost insuperable difficulties throughout the Middle Ages the imperfect anatomy of Galen, which had been in no wise improved by the Arabians, had to serve. The great advance made by Mundinus was that he insisted upon the necessity of verifying the Græco-Arabian anatomy by direct appeal to human dissection. We cannot conceive the bravery of the man who in these days could venture to teach anatomy by demonstration on the human body. The "Anathomia" of Mundinus appeared in 1316. Numerous MSS. of the work are to be found in the principal continental libraries and after the invention of printing in the middle of the fifteenth century it remained the favourite text-book till the time of Vesalius.

III.—THE EPOCH OF VESALIUS (1514–1565).

200 years after Mundinus we come to the next great epoch in the history of medicine, which must ever be associated with the name of Andreas Vesalius. Vesalius was born in Brussels on Dec. 31st, 1514, and was appointed professor of anatomy at Padua in 1539, an office which he held till 1546. In 1556 his scientific career ended and he entered the service of Philip II. at Madrid. In 1564, in fulfilment of a vow, he left Madrid, where his life had been rendered miserable by the envy of his colleagues and the hatred of the clergy, to visit Jerusalem. At Cyprus, on his way, the Senate of Venice again offered him the chair of anatomy at Padua, vacant since the death of Fallopius two years before. On his way back to take up the office he was shipwrecked on Oct. 2nd, 1564, on the island of Zante, where he died on Oct. 15th, 1565, in poverty and misery.

At Bâle, in 1543, at the age of 29 years, Vesalius published his immortal work, "De Humani Corporis Fabrica, Libri Septem" ("On the Structure of the Human Body, in Seven Books") which he dedicated to the Emperor Charles V. The greatest of all the anatomists of the Renaissance, including such great names as Etienne, Eustachius, Columbus, his pupil and prosector, and Fallopius, Vesalius created his fame and established an epoch not so much by the number of his discoveries as by the genius which led him altogether to break with authority, to push to one side the Galenical anatomy, and describe what he saw in actual dissection of the human body itself. Scoffed at by his master, Sylvius, and the other apostles of Galenical medicine, he gained the approbation of Fallopius and Ambroise Paré (Withington); and through his influence on his prosector, Columbus, who demonstrated for him during his absence from Padua, he prepared the way for the greatest discovery of all, that of the circulation of the blood.

IV.—THE EPOCH OF WILLIAM HARVEY (1578–1657).

It is a commonplace to say that great men are the creations of the times in which they live. In a sense this is true of even so great a man as William Harvey. Great as was Harvey's discovery, the ground had been well prepared for it, from the time of Vesalius downwards, by many eminent anatomists whose names are now only to be found in the histories of medicine or as eponyms applied to the structures of the human body which they had described. The valves in the veins had been demonstrated by various authors, whilst the pulmonary or lesser circulation was described in his "Christianismi Restitutio" in 1553 by Servetus[4] the theologian, who was sent to the stake by John Calvin. Under Fabricius ab Aquapendente at Padua, whither Harvey resorted, after five years at Cambridge, in 1599, and where he took his doctor's degree in 1602, all these discoveries would be brought to bear directly upon the thoughts and work of the English student. But like his great successor, Morgagni, the English physician was in no hurry to publish mere speculative results and at the age of 50 years, after many years' patient experimental research and careful reflection, his great discovery was published at Frankfort-on-the-Maine in 1628, the title of the work being "Exercitatio Anatomica

[1] Versuch einer Pragmatischen Geschichte der Arzneykunde, von Kurt Sprengel. Halle, 1821, Erster Theil, S. 12; also, Jourdan's Translation (Paris, 1815), tome i., p. 12.

[2] Sprengel, Jourdan's Translation, tome ii., p. 262.

[3] "Dieselbe Behandlung erfuhr die Leiche des Kaisers selbst (Friedrich Barbarossa) als er im Flusse Saleph bei Jerusalem ertrank. 'Totum corpus in frusta sciderunt, et carnem ejus coxerunt, et ossa ejus extraxerunt, et carnes coctas sepelierunt in Antiochia cum cerebro et visceribus, ossa autem ejus secum tulerunt usque ad civitatem Tyri et sepelierunt ea ibi' (Benedictus Petroburgensis, Gesta Reg. Henrici II. Lond., 1867. p. 566)."—Geschichte der Medicin, Haeser (Jena, 1875), third edition, vol. i., p. 736; also Medical History, Withington (London, 1894), pp. 216–20; also History of Medicine, Park (New York, 1899), second edition, p. 93.

[4] "Vitalis spiritus in sinistro cordis ventriculo suam originem habet. . . . Generatur ex facta in pulmonibus mixtione inspirati aëris cum elaborato subtili sanguine, quem dexter ventriculus cordis sinistro communicat. Fit autem communicatio hæc non per parietem cordis medium, ut vulgo creditur, sed magno artificio a dextro cordis ventriculo, longo per pulmones ductu, agitatur sanguis subtilis. A pulmonibus præparatur, flavus efficitur, et a vena arteriosa in arteriam venosam transfunditur. Deinde in ipsa arteria venosa inspirato aëri miscetur, expiratione fuligine repurgatur. Atque ita tandem a sinistro cordis ventriculo totum mixtum per diastolen attrahitur, apta suppellex, ut fiat spiritus vitalis. . . . docet conjunctio varia et communicatio venæ arteriosæ cum arteria venosa in pulmonibus."—Christianismi Restitutio (Viennæ Allobrogum, 1553), pp. 170, 171; Haeser, loc. cit., vol. ii., p. 245. For translations of this remarkable passage see History of Physiology, Foster (Cambridge, 1901), p. 24; also Withington, loc. cit., p. 279.

de Motu Cordis et Sanguinis in Animalibus." Vesalius and his colleagues shook to its foundation the structure of Græco-Arabian Galenical medicine; Harvey brought it to the ground.

In this brief summary of the progress of medical science before the time of Morgagni I have selected the names of the great anatomists to represent the epochs, because all sound advance in medical knowledge must be founded on exact anatomical knowledge. It must not be supposed, however, that these names represent all who in those early days contributed to the progress of our art. From the very beginning of the Christian era great clinicians have existed, whose descriptions of disease may be read with profit to this day, and whose therapeutical procedures are even now not without value. The names of the great Arabian physicians, Mesue, Rhazes, Avicenna, and others must ever live in the history of medicine. Guy de Chauliac (born about 1300), the junior contemporary of Mundinus, and surgeon to Clement VI. at Avignon, is known as the "restorer of surgery." In the era of Vesalius one of his greatest admirers was Ambroise Paré, whom we may regard as the father of modern surgery.

V.—THE EPOCH OF MORGAGNI (1682–1771).

Morgagni's professional life extended over nearly three-quarters of the eighteenth century, a century characterised by great intellectual and literary activity, by great national and social unrest throughout Europe, and by the downfall of the great French monarchy. Again it was to be from the University of Padua that the new light was to come—Padua, already made famous by the labours of Vesalius, Columbus, Fallopius, Fabricius ab Aquapendente, and most of all by the discovery of its most famous graduate, William Harvey. Up to the middle of the eighteenth century there was no scientific medicine. The physicians of Morgagni's day were mainly concerned about the establishment of systems of theory and practice, based on *a priori* principles, and the drawing up of systematic nosologies. The doctrines promulgated by all of them were simply variations or modifications of the two fundamental ideas of ancient and mediæval pathology—humoralism and solidism. The iatro-chemical and iatro-physical schools, animism, vitalism, all had their votaries and the only gleam of sunshine in the wilderness of doubtful metaphysics was the splendid clinical work of such men as Sydenham, Baglivi, and Boerhaave.

Jean Baptiste Morgagni was born on Feb. 25th, 1682, in the town of Forli, about 40 miles from Bologna. After the usual school training in classics and philosophy he proceeded, at the age of 16 years, to study medicine at the University of Bologna under Albertini and Valsalva. In the year 1701, at the age of 19 years, Morgagni received his doctor's degree and became assistant or prosector to his master Valsalva, who was then engaged in his important work on the anatomy of the ear. Soon after this he sought to finish his professional education by travel and ultimately returned to Padua, where in 1711, at the age of 29 years, he was appointed junior professor of anatomy in succession to Vallisneri. In 1715 he became first professor of anatomy in the university, an office which he filled with great credit and acceptance till his death on Dec. 6th, 1771, in his ninetieth year. Morgagni married Paola Verzeri, a lady of noble family in Forli, by whom he had 12 daughters and three sons. Eight of his daughters became nuns. Of his sons, one died in his second year, another became a Jesuit priest, and the third settled in Forli and died at the age of 52 years. Eight of the great anatomist's family survived him.

Morgagni received during his lifetime very substantial recognition of the value in which his labours were regarded by those well fitted to judge of the merit of the work in which he was engaged. The Royal Society of London, the Royal Academy of Science in Paris, the Imperial Academy of St. Petersburg, and the Royal Academy of Berlin enrolled him among their honorary members. He also received substantial marks of esteem from the King of Sardinia, the Emperor Joseph II., and three successive Popes. His fellow townsmen combined to do him honour and during his lifetime his bust was placed in the town hall of Forli. A statue of Morgagni was unveiled at Forli on May 27th, 1875 (Virchow).

The writings of Morgagni comprised works upon the history of medicine and upon archæology as well as upon anatomy and pathology. It is with the latter, however, that we are now concerned and by which he is best known to us. His writings on anatomy were comprised in a series of volumes which he called "Adversaria Anatomica," six in all, which were published between the years 1706–1719, but the greatest of all his works and the one which created an epoch in the history of medicine was the "De Sedibus et Causis Morborum per Anatomen Indagatis, libri quinque" ("The Seats and Causes of Diseases investigated by Anatomy," in five books), published in two volumes in Venice in 1761. Observe the date, 1761. Morgagni was 79 years of age—surely he must have been an extraordinary man who, at a time when most consider that their life's work is done, could give to the world a book which will live as long as the medical art itself. The work took the form of a collection of letters which he directed to prominent physicians. He chose this form because it appeared to him the most convenient in which to explain in an untrammelled manner the different relationships of all the phenomena described. The first book dealt with the diseases of the head; the second with the chest; the third with the abdomen; the fourth with external and surgical affections; and the fifth was a supplement to all the others. Morgagni's book differed from all that had preceded it mainly in this, that he set himself definitely to explain the symptoms during life by the morbid changes which were found after death. He himself was modest enough to regard it as a mere continuation of the Sepulchretum of Bonetus. But it was far more than this. The Sepulchretum was often a mere collection of curiosities and monstrosities, of what were regarded as peculiar and out of the common rule, and frequently normal were mistaken for abnormal conditions. Morgagni set himself definitely to bind together as intimately as possible the results found in the dead body with the symptoms observed during life, so as to obtain a complete picture of the disease. He followed the ancient symptomatological rules, adding to them pathologico-anatomical explanations. The work is on this ground not in the least a handbook of pathological anatomy in the modern sense but rather a repertoire of pathologico-anatomical explanations of medical symptomatology. A rare modesty is displayed on every page—a sure sign of the greatness of the man and an earnest of his pure and unwavering devotion to the service of science and truth (Haeser). "It is difficult," writes Sprengel, the German medical historian, "to say whether one should admire most his rare dexterity and quickness in dissection, his unimpeachable love of truth and justice in his estimation of the work of others, his extensive scholarship and rich classical style, or his downright commonsense and manly speech. From every point of view Morgagni stands alone as an almost unattainable example to modern medical men." The plan of this great work is fully set forth by the author himself in his preface, which is easily available to readers of the present day in Dr. B. Alexander's literal translation. In two places he refers to his great labour and his advanced years. He expresses his hope that he may be excused by all reasonable men from undertaking the labour of preparing proper indexes for the Sepulchretum because "at my time of life and without anyone to assist me, even a pupil or an amanuensis," he had not the leisure. Again, in reference to the De Sedibus, he says: "I am so far advanced in life that all these parts of the work, after being revised with the utmost diligence I was capable of, at length came abroad into the world almost in the eightieth year from the time in which I was born." He has completed four different indexes to the book, which are models of accuracy and completeness, and by means of which these large folios may be consulted without difficulty.

What Vesalius and Harvey did for the study of anatomy and physiology Morgagni did for the study of pathology and practical medicine. As the labours of the former shattered the dogmas of the Græco-Arabian medicine, so the patient lifelong work of the modest professor at Padua gave the deathblow to the great metaphysical medical systems of the eighteenth century and started the practice of medicine on a new and glorious career.

THE CONTEMPORARIES OF MORGAGNI.

It is necessary that a few words should now be said of the great contemporaries of Morgagni, who were engaged along with him in placing the practice of medicine on a scientific foundation. I have already said that the eighteenth century was one of great intellectual activity and this is true as regards the workers in the domain of medicine as in the other departments of human knowledge. Among the chief scientific men of the century must be placed Albrecht von

Haller of Berne (1708–77), the most eminent physiologist since William Harvey. Haller was probably the greatest natural genius amongst the physicians of the eighteenth century and his industry was enormous. He was distinguished not only as a physiologist but also as a botanist, a poet, and a bibliographer. Perhaps Haller's greatest work was contained in his two memoirs entitled "Sermones de Partibus Corporis Humani Sentientibus et Irritabilibus," communicated to the Royal Society of Göttingen in 1752. In his work on the liver, published in 1654, Glisson of Cambridge first developed the idea of "irritability" as a vital force. "It is undoubtedly to Glisson that we owe the first introduction, not only of the word but of the idea of 'irritability,'" says Sir Michael Foster.[6] This is true, but it was Haller who, 100 years later, by experimental research, the results of which were contained in the memoirs noted above, proved the truth of what to Glisson was little more than a theory largely based on *a priori* considerations, and made it part of the physiology of our time. He distinguished between sensibility and irritability, he recognised a *vis insita* as inherent in all "irritable" tissues, and a *vis nervosa* by which the *vis insita* is most frequently called into play.[7] In this way Haller materially advanced the science of physiology. To Haller Morgagni dedicated his "Opuscula Miscellanea," Pars Prima (Neapoli, 1763).

In Great Britain, during the latter part of Morgagni's life, valuable and lasting work in anatomy, in surgery, in natural history, and in clinical medicine was being done by the two brothers William and John Hunter in London, and by William Cullen in Glasgow and Edinburgh. Cullen was a Fellow of the Faculty of Physicians and Surgeons of Glasgow and began his teaching career in our city; William Hunter was enrolled an Honorary Fellow on March 4th, 1751, and left his great museum and library to the University of Glasgow. Cullen may be regarded as the last of the great systematic physicians of the eighteenth century, struggling against the thraldom of the humoral pathology, although his "Nosology," greatly celebrated in its day, is now only of historical importance.[8]

Perhaps, however, one of the most striking illustrations of the intellectual awakening which was taking place amongst the medical men of Europe in the eighteenth century is to be found in the work of Joseph Leopold Auenbrugger (1722–1809), the discoverer of the method of percussion. While the writings of Morgagni and Haller are contained in many and large volumes, the work of Auenbrugger, entitled "Inventum novum ex Percussione Thoracis Humani ut Signo Abstrusos Interni Pectoris Morbos Detegendi," published in 1761, the same year in which the De Sedibus saw the light, is a mere brochure of 95 pages which, says Park, "unsaleable in his time, is to-day held worth far more than its weight in gold."[9] Yet the influence of this small work on the department of medicine with which it deals has been as great as that of any medical work that ever was written. The library of the Faculty of Physicians and Surgeons is happy in the possession of a copy of the very rare first edition.

THE SUCCESSORS OF MORGAGNI.

We have now to trace the influence of Morgagni on the work of the men who endeavoured to carry out in practice the great principle which he established. This can perhaps best be done by glancing at the work of the French, the British, and the German physicians who followed him. In France the first on whom the mantle of Morgagni fell was Marie François Xavier Bichat, who was born at Thoirette in the department of the Jura in 1771, the year in which the great professor of anatomy at Padua died. Bichat died in 1802 from a putrid fever, probably the result of a dissection wound, at the age of 31 years. He founded the modern science of histology. The work, perhaps, by which Bichat is now chiefly remembered is the "Recherches Physiologiques sur la Vie et la Mort," which was first published in 1800. The book is animated throughout by the modern scientific spirit. He divides life into two remarkable modifications—*la vie organique*, common to plants and animals; and *la vie animale*, characteristic of animals alone.

Ten years after the death of Morgagni there was born, in 1781, at Quimper, in Brittany, René Théophile Hyacynthe Laennec, who in a short life of 45 years not only founded but brought to great advancement the science of the physical diagnosis of disease. Auenbrugger and Laennec have done more for practical medicine and physical diagnosis than any other men. The work of Laennec was animated throughout by the spirit of Morgagni. By the most careful and untiring work in the post-mortem theatre, he always endeavoured to verify his clinical observations by the most accurate investigation of the changes met with in the organs after death. In 1874 Gairdner wrote of Morgagni as follows: "I claim not only the professed and exclusive morbid anatomists, but also, and still more, almost all the greatest physicians and surgeons of our own and the last century, as the legitimate successors of Morgagni and the inheritors of his method of working. Without him we should probably have waited much longer for Laennec and might very probably have been at this hour without the stethoscope and all that it has brought us."[9] Not only did Laennec discover the stethoscope, he was also the first to describe in its true relationships and significance the nature of tubercle.

It is unnecessary to do more than to name Corvisart, Bayle, Louis, Bretonneau, and Cruveilhier to prove that the French school of the beginning of the nineteenth century fully entered into the spirit and labours of Morgagni.

In Great Britain the immediate influence of Morgagni's teaching fell first of all upon Matthew Baillie (1761–1823), a nephew of the Hunters and of Joanna Baillie, the poetess. In 1793 Baillie published "The Morbid Anatomy of some of the most Important Parts of the Human Body," a work which went through five English editions up to 1818 and was translated into French, German, and Italian. In his preface Baillie complains that in the "works explaining morbid anatomy which I have seen" there are two faults—(1) a want of accuracy, and (2) a too great attention often to trifling collateral circumstances. He goes on to say: "Both of these faults too frequently occur, even in the stupendous work of Morgagni de causis et sedibus morborum, upon which, when considered in all its parts, it would be difficult to bestow too high praise."[10] We can forgive Morgagni his faults, and excuse the faint praise of Baillie, when we observe that the critic has misquoted the title of the Paduan professor's book. Baillie's book may be described as the first systematic treatise upon pathological anatomy in the English tongue, and it was valuably supplemented by the publication of an "Atlas of Morbid Anatomy" between the years 1799 and 1802. Later in life Baillie rivalled Sir Henry Halford as the leading consulting physician in London.

It is unnecessary to refer in detail to the successive physicians and surgeons of our own country who pursued their labours in the spirit of Padua. Suffice it to say that work carried out in this spirit led to the discovery of the relationship of albumin in the urine to organic disease of the kidneys by Richard Bright; to the splendid clinical work of Addison, Stokes, Graves, Allison, and Hughes Bennett; and to the investigations—in which Perry of Glasgow had a considerable part—which finally led to the distinction of typhus fever from enteric fever.

The influence of Morgagni was perhaps longer of being felt in Germany than either in France or Great Britain. For this delay there are, according to Haeser, several reasons.[11] The chief, perhaps, was the hold that the Brunonian system had upon the German professional mind. There is perhaps no more peculiar phenomenon in the whole history of medicine than the enormous influence which the doctrine of life, being the result of the action of stimuli on the "excitability" of the body, as promulgated by Dr. John Brown, the dissolute classical scholar who translated Cullen's works into Latin, exerted on professional thought, more especially in Germany and Italy. According to Brown's doctrine "diseases are due either to excessive or deficient excitement (*i.e.*, life), and are termed sthenic or asthenic, according as they arise from the former or latter cause."[12]

No advance towards scientific medicine could be looked for in schools where such a theory was seriously adopted and taught and so it was practically not until the time of Virchow and his immediate predecessors and teachers that the influence of Padua was felt in Germany. But the mention of Virchow reminds me that my present task is almost

[6] History of Physiology (Cambridge, 1901), p. 289.
[7] Foster, loc. cit., pp. 282, 283.
[8] For the connexion of William Hunter and Cullen with Glasgow, consult Duncan's Memorials of the Faculty of Physicians and Surgeons of Glasgow (Glasgow, 1896).
[9] Loc. cit., p. 211.
[9] The Progress of Pathological Science: John Baptist Morgagni and his Successors. Brit. Med. Jour., Oct. 24th, 1874, vol. ii., p. 515.
[10] Morbid Anatomy, fourth edition (London, 1812), p. ix.
[11] Loc. cit., p. 907.
[12] Withington, loc. cit., p. 352.

done. With the work of Virchow, of Pasteur, and of Lister, a triple alliance full of the brightest promise for the welfare of mankind, a new era has commenced, the end of which we cannot see, and our proximity to which is too close to enable us to form an impartial opinion as to its true place and value in the history of medicine. The publication of the "Cellular Pathology" in 1858 sufficiently marks the beginning of the newer impulse. The cell doctrines of Schleiden and Schwann (first promulgated in 1837 and 1838[12]) were being vigorously studied and applied by anatomists and physiologists all over Europe when Virchow was a student in Berlin (1839–43). In this country the work of Goodsir (of Edinburgh) and Redfern (of Belfast) must ever rank as of the highest importance in cellular physiology and pathology.

As is always the case in medical history, the way had been prepared for Virchow but to him belongs the honour of having started our present-day pathology on its course. From whatever point of view we regard him—whether as a pathologist, a physician, an anthropologist, or a statesman—Virchow must always stand as one of the greatest representative men of the nineteenth as Morgagni was of the eighteenth century. Of Virchow's opinion of Morgagni and his work we have an excellent expression in the eloquent address which he delivered before the Eleventh International Medical Congress at Rome on March 30th, 1894, entitled "Morgagni und der anatomische Gedanke." The guiding star in all Morgagni's work was "der anatomische Gedanke"—the anatomical idea or concept—an idea which, I think, has yet to carry us far. "Some diseases," wrote Matthew Baillie, "consist only in morbid actions but do not produce any change in the structure of parts; these do not admit of anatomical inquiry after death."[14] Virchow, in the address just referred to, gives expression to the same opinion. "Aber die pathologische Anatomie ist ausser Stande, für jede Krankheit eine Sedes nachzuweisen. In dem grossen Gebiete der Nervenkrankheiten und selbst in dem der Vergiftungen giebt es zahlreiche Fälle, in welchem die anatomische Untersuchung insufficient ist."[15] Notwithstanding these weighty opinions I think we are not yet quite done with the anatomical idea in medical investigation. With our modern methods of physical research, our differential staining reagents, our immersion lenses of great magnification, and our culture media we are now enabled to locate the seats of diseases in altered structure of parts so minute, in affections of the nervous system, and in diseases due to poisons, that it is not suprising that even Virchow, so recently as 1894, should have thought that for these diseases "die anatomische Untersuchung insufficient ist." But it is not so; the microscopic morbid appearances in nerve cells and blood corpuscles, which are now being revealed to us as the seat of these apparently functional or toxic diseases, prove that the anatomical idea is still guiding our researches. With Morgagni the anatomical concept originated and it guided him through his long and lonely study of the seats of diseases. Let me conclude by saying with Virchow, "Ihm sei die Ehre!" To him be the honour.

[12] Pagel, Geschichte der Medicin (Berlin, 1898), p. 346.
[14] Loc. cit., Preface, p. iii.
[15] Morgagni und der anatomische Gedanke (Berlin, 1894), p. 21.

YORK HOME FOR NURSES.—The vacancy for a lady superintendent of the York Home for Nurses has been filled by the election of Miss Margaret Morgan who was for some years matron of Addenbrooke's Hospital, Cambridge. Miss Morgan was trained at the London Hospital, in which she filled various responsible appointments during a connexion of over 13 years with that institution. During the last five years of that time she was assistant matron under Miss Eva Lückes.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—The first evening meeting of the session will be held on Tuesday, Nov. 7th, when the recent additions to the museum and library will be exhibited in the examination hall. Apparatus and appliances lent by members of the society and others interested in pharmaceutical practice will also be shown. Members and student-associates of the society are cordially invited to attend these meetings which are not merely scientific in their character but afford opportunity for conversation and social intercourse between those engaged in pharmaceutical work.

ABSTRACT OF

A Clinical Lecture

ON

OCULAR TUBERCULOSIS IN CHILDREN.

Delivered at the Hospital for Sick Children, Great Ormond-street, on Oct. 19th, 1905,

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GENTLEMEN,—When I was requested by the Dean to give a clinical lecture I had no difficulty in choosing my subject owing to the unusual number and characteristic types of tuberculosis of the eye which I have recently had under observation.

Conjunctiva.—Tubercle of the conjunctiva is rare, the highest estimate with the most careful bacteriological investigation being 1 in 2700 eye cases (Eyre). It occurs in various forms. 1. Small miliary ulcers, which usually caseate and may or may not coalesce; they attack the palpebral in preference to the bulbar conjunctiva. Such a case derived from this clinic was shown at the Ophthalmological Society in 1904 (Smythe). The ulcers were vigorously scraped and the child was sent to our convalescent home at Highgate. You will see that the patient is now cured, the ulcers being replaced by sound cicatrices. 2. Grey or yellow subconjunctival nodules, much resembling trachoma granulations, passing on into florid masses of granulation tissue. They usually spring from the fornices and there can be little doubt that they are often mistaken for trachoma in clinics where trachoma is common. I am inclined to think that they are sometimes cured by the vigorous treatment generally adopted in trachoma, so that they may escape diagnosis altogether, especially in the not infrequent absence of enlargement of the pre-auricular gland. 3. "Cockscomb" excrescences in the fornices. I am able to show you a typical case, with swelling of the pre-auricular and parotid lymphatic glands. 4. Polypoid tumours. These are very rare, but the polypoid shape is less surprising when we remember that any tumour of the conjunctiva, even sarcoma, may assume this form; it is due to the perpetual movements of the globe and lids. 5. Finally, tuberculous ulceration may be merely an extension of lupus. The sections which I show demonstrate the presence of typical giant-cell systems in all these types. The condition is probably due to primary inoculation of the tubercle bacillus.

Cornea.—Primary tubercle of the cornea is excessively rare. Some time ago I inoculated the cornea of six rabbits with virulent cultures of the bacillus (for which I am indebted to Dr. Sydney H. C. Martin). In every case the rabbits recovered after a very temporary inflammation and were quite healthy two years later.

Iris.—Tubercle of the iris occurs in three forms. 1. Miliary tubercle, the nodules being scattered over the surface of the iris, especially in the situation of the lesser arterial circle and near the ciliary border. I am able to exhibit a drawing of a case shown at the Ophthalmological Society recently by Mr. J. H. Fisher and sections of the same case by Mr. G. Coats. They may disappear (attenuated tubercle of Leber) or they may fuse, so that the whole iris is changed into a mass of granulation tissue, the eye being eventually lost. Such a case is seen in the section shown.[1] Invasion of the cornea and perforation at the corneo-scleral margin usually occur.[2] 2. Confluent or conglomerate tubercle. Here there is a definite yellowish tumour on the iris, often with smaller satellites around. The diagnosis is easier in children than in adults, since the question of syphilis or sarcoma is more readily eliminated. In the case shown there is tuberculous disease of the mastoid with facial paralysis; there is also dacryocystitis, probably due to tuberculous disease. The condition of the iris has remained quite unchanged since May, an unusually long time, probably due

[1] Parsons: Pathology of the Eye, vol. i., Fig. 194.
[2] Ibid., vol. i., Fig. 195.

to improved general conditions, much of the time having been spent in the hospital. The opsonic index was determined by my house surgeon, Mr. FitzWilliams, and found to be 1·5. After one injection of tuberculin the tumour is distinctly smaller, more of the pupillary margin of the iris being visible; the opsonic index a day or two ago was 0·9. Whether the diminution in size is to be attributed to the injection is uncertain but further treatment on the same lines will be carried out with a view to confirming the beneficial results which have been obtained in similar cases by Hess. 3. Tuberculous iritis.

Much discussion and some misapprehension have arisen with regard to the question whether tubercle of the iris is primary or secondary. Of course, in the absence of an infected perforating wound true primary infection is impossible. The condition must be of endogenous origin and the only doubt is whether it is the primary deposit from the blood or lymph. The statistics of Denig tend to support the view that it is, but when one considers the difficulty of clinically eliminating with certainty all other deposits in any part of the body and the frequency of unsuspected tubercle in post-mortem examinations I think that the balance of evidence is in favour of the view that the affection of the iris is a secondary manifestation. The question is of great importance, as on the theory of primary deposition early excision of the eye is indicated to prevent dissemination. Perhaps the effects of tuberculin or von Behring's treatment may soon relieve us from the dilemma.

Ciliary body.—Tubercle of the ciliary body is generally regarded as an extension from the iris—usually late—or choroid. It is not improbable, however, that it commences more frequently in this situation than published records would lead one to suppose, a view which is supported by the susceptibility of the ciliary body to other granulomatous affections.

Choroid.—Tubercle occurs in the choroid in an acute or miliary and in a chronic form. 1. Miliary tubercle. Cohnheim found that the choroid was frequently affected in general miliary tuberculosis; Bock put the percentage at 82·7 and Litten at 75. It often occurs only shortly before death. The number of tubercles varies greatly; there are generally only three or four, but as many as 60 or 70 have been found. Both eyes are usually affected. Any part of the choroid may be attacked but preference is shown for the neighbourhood of the disc; this may be due, however, to the statistics depending chiefly upon ophthalmoscopic data. The first case described was one in which the tubercles were so far peripheral as to be quite beyond the ophthalmoscopic field of vision and they are often found in this situation in the post-mortem room. The nodules vary in size from pale pin-point specks to one or two millimetres in diameter; they may be larger but this is unusual and is due to confluence of smaller ones. They generally project inwards slightly, so as to raise the retina, but the inner surface is often quite flat, whilst the outer surface projects into the sclerotic.

Chronic tubercle of the choroid usually has one of two forms: a diffuse inflammation affecting large areas or the whole choroid and characterised by the extensive development of granulation tissue; and the formation of a large circumscribed tumour-like mass, the solitary or conglomerate tubercle. The clinical picture may resemble glioma, so that these cases form one class of pseudo-glioma, as in the case shown. The pathological anatomy is exemplified in the sections.[3] Only in the smaller miliary tubercles are typical giant cell systems seen. It is characteristic of a tubercle in the whole uveal tract that endothelial reaction, giving rise to epithelioid cells, is less marked than in other parts of the body, probably owing to the extreme vascularity of the tissues. Giant cells of the Langhans type are plentiful, imbedded in granulation tissue containing vast numbers of lymphocytes. It may be pointed out that this fact renders the anatomical diagnosis from sympathetic ophthalmia difficult. An interesting example is seen in one of the sections.[4] The specimen was sent to me by Professor Fuchs of Vienna. It has all the microscopical characters of tubercle and was first regarded as such by Professor Fuchs. It was obtained from a girl, aged 20 years. Three years after the sight failed in this eye the other eye became inflamed and the vision was ultimately lost. There had been no injury or wound. In a recent most excellent paper upon sympathetic ophthalmia Professor Fuchs has included the case, regarding it as a case of necrotic sarcoma giving rise to sympathetic inflammation. Considering the extreme rarity—indeed, the very doubtful occurrence—of sympathetic inflammation following sarcoma, the clinical history, and the anatomical features, the diagnosis of tubercle, even in the absence of demonstration of bacilli, would seem to be a more reasonable hypothesis.

The chronic forms of choroidal tubercle progress slowly until the eye is destroyed. An early and important feature is the erosion of the inner lamellæ of the sclerotic which takes place. Later, the membrane of Bruch gives way and the retina is attacked. Finally, the granulation tissue fills the vitreous chamber and perforates the globe, sometimes appearing as a tuberculous ulcer.[5] The question of retrogression of tubercle of the choroid is of great importance. It has recently been stated that white atrophic patches, associated with much pigmentation, not infrequently follow choroidal tubercle. They have been noticed in children suffering from what has been conveniently called "surgical tuberculosis"—i.e., tuberculous adenitis, joint disease, &c. I do not think that sufficient care has been taken to eliminate syphilis in these cases. I have very carefully examined 40 cases of "surgical tuberculosis" derived from the clinics of my colleagues at this hospital. The number is as yet far too small to base any final conclusions upon, yet it is interesting to note that, apart from errors of refraction, pigmentary stippling within physiological bounds and without definite signs of congenital syphilis, only one case, which is now shown, had any appearance possibly due to tubercle. This child is a boy, aged five years, under the care of Mr. H. S. Collier, suffering from tuberculous disease of the hip. He has two curiously symmetrical small white patches, one in each eye, between the disc and macula, at a slightly lower level. Both are circular, though there is some shading off into the surrounding normal fundus. Where the patch shades off there is a stippling with very faint brownish pigment only seen on careful examination. There is no specific history. The child seemed in relatively good health when these were first observed a month ago and I thought that they were probably obsolescent tubercles. The child is not so well now and it is possible that further manifestations are developing. I think this is the more probable from another case which I observed in this hospital. Here there was a similar circular patch near the disc, rather larger, and with a very distinct ring of faint black pigment concentric with the periphery. The appearance suggested a tubercle of at least some considerable duration. The child died from disseminated tuberculosis and I obtained the eye for microscopical examination. Mr. Coats very kindly cut serial sections for me and after laborious search found the spot. You will notice that it consists of a typical miliary tubercle with two giant cells in the section, surrounded by epithelioid cells and a few lymphocytes. The giant cells are of the Langhans type and contain a large amount of pigment. On the whole, therefore, there is no pathological or indubitable clinical evidence in favour of obsolescent tubercle in the choroid. I hope to continue these investigations which are obviously too fragmentary to be of much importance.

Retina.—In nearly all cases tubercle of the retina is secondary to affection of the uveal tract or optic nerve. A few doubtful cases have been recorded, that by Hancock being a case in point.[6]

Optic nerve.—Miliary tubercles in the sheaths and septa of the optic nerve are not infrequently found in cases of tuberculous meningitis. The nerve is also attacked from the choroid. Primary tubercle of the nerve is excessively rare. The cases on record have been conglomerate tubercle attacking the papilla and anterior part of the nerve. The only case in which the diagnosis has been placed beyond dispute is shown in the sections. The child, a boy, aged 16 months, came under my observation at the Royal London Ophthalmic Hospital. As the child was extremely ill I transferred him to the care of Dr. A. F. Voelcker at this hospital. He died from miliary tuberculosis and I obtained the eye post mortem. Mr. Coats kindly made the sections and demonstrated the presence of tubercle bacilli; he is reporting the case *in extenso* in the Royal London Ophthalmic Hospital Reports. Here there is a large necrotic granulomatous

[3] Op. cit., vol. ii., Figs. 337, 338, 339, 340.
[4] Ibid., vol. ii., Fig. 338.
[5] Ibid., vol. ii., Fig. 340.
[6] Ibid., vol. ii., Figs. 457–89.

tumour situated upon the disc.[7] There were no pesfect tubercle systems in it but there were a few giant cells of the Langhans type. The anterior part of the nerve behind the lamina cribrosa was swollen and occupied by caseous granulation tissue. There were no other deposits in the eye, except slight extension into the choroid for about one papilla diameter around the disc. There might have been some doubt as to the question of gumma had not tubercle bacilli been demonstrated.

SUBTOTAL HYSTERECTOMY FOR FIBROIDS: THE AFTER-HISTORIES OF 60 CASES: PRESERVATION OF THE OVARY AND THE ABEL-ZWEIFEL THEORY.[1]

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I. INTRODUCTION.

THIS communication is mainly an analysis of a series of 60 cases of subtotal or supravaginal hysterectomy for fibroids in my own operative practice from March, 1897, to February, 1903, where in every instance the patient had not reached the menopause and a sufficiently long after-history was obtainable. Each patient was traced for at least two full years and most of the cases have been under observation for a much longer space of time. Where one or both ovaries are saved a two years' history is absolutely needed, for, as will be seen, a kind of period may be observed for many months after a subtotal hysterectomy where both ovaries have been removed. I have on that account rejected several interesting cases, the after-histories being too short or otherwise imperfect. After-histories carefully collected are essential when hysterectomy for fibroid, whatever be the variety of the operation in question, is considered as a procedure of benefit to the patient, just as they are essential for judging the value of operations for the removal of a pyosalpinx or an ovary damaged by chronic inflammation. In the pages of the medical press we read of series of the latter class of operation without a single after-history, recovery being reckoned as "cure"; unfortunately late complications are extremely common and persistence of more or less local pain is the rule. So it is with hysterectomy; long series of "successful cases" without after-histories are useless, for recovery is by no means always what the patient would consider "cure." The tumour is gone it is true, its removal has not involved the sacrifice of the patient's life, but certain discomforts may for awhile embarrass the patient and the surgeon should be aware of the nature of these possible discomforts.

The main object of my research into my own work is to determine (1) how far the patients receive lasting benefit from subtotal hysterectomy; (2) how far they are liable to certain discomforts; and (3) how far the preservation of more or less ovarian tissue may save them from those discomforts.

1. There can be no doubt that so far as the removal of the tumour is concerned the immediate results of this operation after convalescence are highly satisfactory; hence I need not dwell upon its different stages from the delivery of the tumour through the abdominal incision up to the closure of that incision, nor on adhesions and other complications; two subjects, however, in association with the steps of the operation itself must be seriously considered under the third head.

2. That uncomfortable or even distressing symptoms not rarely follow the operation there can be no doubt and these statistics show that the operator cannot absolutely guarantee the patient against them. From this, the second head, it follows that we must be careful how we urge an operation where the patient is subject to a fibroid of small size which is not growing, not pressing on any important structure, and not the cause of hæmorrhage. To these qualifications we must add that although relative youth is an argument in favour of operation, the presence of a small fibroid above the lower segment of the uterus does not justify any surgical procedure which may sterilise the patient, for pregnancy and labour often end normally in such cases. In short, where a patient is living in perfect comfort and capable of bearing children the removal of a fibroid uterus,[2] though attended with little risk to life, necessarily involves barrenness and may very possibly be followed by much discomfort.

3. Manifestly, however, in many circumstances the removal of the fibroid uterus is demanded so that certain possible discomforts must be risked. How to counteract them is a problem which the surgeon must face. This problem is in part solved, the saving of ovarian tissue has proved of direct benefit, and these statistics tend to confirm the value of that practice. In fact, it is good to save one ovary at least, provided it be healthy. Should both ovaries be diseased they must come away; the annoyance of a premature menopause is slight and the chances of grave mental disturbance are small compared with the dangers of a suppurating tube or ovary or the development of an ovarian cystic tumour.[3] But healthy ovarian tissue may be saved and when preserved it will probably keep the patient from unnecessary discomfort. Is it sufficient, however, to save ovarian tissue? The theory has been advanced that it is of little or no avail unless some endometrium be preserved as well. This means that in subtotal hysterectomy the surgeon should not only save one ovary at least but should also amputate above the os internum in order to anticipate and to prevent trouble from a premature menopause. This theory, which must be taken into account by the advocates of panhysterectomy where cervix and endometrium are of necessity sacrificed entire, was first advanced by Abel and Zweifel, on the ground of experience similar to my own. For the sake of convenience it may be distinguished by the names of those authorities. Zweifel in the year 1899 declared at an annual meeting of the German Gynæcological Society that Abel had followed up a series of cases of conservative subtotal hysterectomies and found that when the body of the uterus was amputated entire atrophy of the ovaries left behind always followed, so that within three years troublesome menopause symptoms set in, just as is often observed after removal of both ovaries. Yet in three instances under Abel's observation a portion of the endometrium or uterine mucous membrane was saved and it happened that the patients all continued to menstruate and were all free from flushings and other neuroses.[4] Zweifel endorses Abel's teaching and insists that it is the operator's duty to save a piece of the uterine mucosa whenever possible.

Thus there would appear to be advantages in putting the Abel-Zweifel theory into practice—that is to say, it is good that the amputation of the uterus be not carried so low as the level of the os internum. On that account I have scrutinised my own practice in regard to the level of amputation in each case in my series. There are disadvantages in leaving a relatively big stump but they mainly concern the immediate effects of the operation during convalescence, a subject not within the scope of the present argument. It is for the advocates of panhysterectomy to show whether that operation be not followed by bad menopause symptoms even when the ovaries are saved. In Herbert Spencer's table of 14 cases of total abdominal hysterectomy for fibromyoma uteri, published in October, 1902,[5] no after-histories are given and the majority of cases underwent operation later than October, 1900. A full series of after-histories from that consistent advocate of panhysterectomy would be of high interest. Mandl and Bürger, in their valuable monograph on the biological status of the ovaries after removal of the uterus,[6] seem to imply that such symptoms do follow this conservative panhysterectomy. They are suspiciously cautious

[7] Op. cit., vol. ii., Fig. 491.

[1] A paper read at a meeting of the Obstetrical Society of London on Nov. 1st, 1905.

[2] The question of myomectomy does not come within the scope of this communication.

[3] It is rarely necessary to sacrifice both ovaries for purely surgical reasons, such as perfect hæmostasis.

[4] Bericht über die Verhandlungen der 8. Versammlung der Deutschen Gesellschaft für Gynäkologie in Berlin, Centralblatt für Gynäkologie, No. 21, 1899. The above researches are noted on p. 616. The operator should read Zweifel's warnings at p. 615 about the importance of tender handling of the stump, of necessity larger than when only a portion of the cervix is left behind.

[5] Total Abdominal Hysterectomy for Fibromyoma Uteri, Brit. Med. Jour., vol. ii., 1902, p. 1131.

[6] Die Biologische Bedeutung der Eierstöcke nach Entfernung der Gebärmutter, experimentelle und klinische Studien, Leipsic, 1904. This work includes six tables of abdominal and vaginal panhysterectomies for various diseases.

in their concluding remarks. Conservative treatment of the ovaries, they declare, has undoubted advantages but preference cannot safely be given to it without qualification. Indeed, these authorities fail to see their way to the guaranteeing of permanent good results after extirpation of the uterus, whether the ovaries be more or less saved or entirely removed. They make full allowance for the relative safety and facility of hysterectomy after the most modern methods but point out that even now the remote results of such proceedings are not always satisfactory. Therefore removal of the uterus is not to be attempted lightly and it is better to "conserve" the organ as long as possible than to do a conservative operation.[7]

Unfortunately no sound conclusions can be founded on comparisons between my own results and those reported by Mandl and Bürger, for their tables of cases of abdominal panhysterectomy, with saving of one or both ovaries, are based on only 14 of such operations, an insufficient number[8] according to the authors' own admission, whilst I have been able to collect 32 cases of subtotal hysterectomy with saving of one or both ovaries in my own surgical practice between March, 1897, and February, 1903.

In my Harveian lectures[9] I dwelt on the value of Dr. G. Crewdson Thomas's well-known article which appeared about four years ago in THE LANCET.[10] My own researches have been greatly facilitated by the study of his tables of after-histories. They include 100 cases, representing the practice of several operators, while my tables include 60 confined to my own practice. I have on due deliberation modified Dr. Thomas's tabulation. His headings were six in number: 1. Case. 2. Years of Age. 3. Date. 4. Operation. 5. Present Condition. And 6. Artificial menopause. I have retained headings 1 and 3, whilst under heading 2 I have added "Md." or "S."—married or single. Dr. Thomas's heading 4 is altered for the sake of greater accuracy to "Treatment of Ovaries," whilst headings 5 and 6 are blended under the title "Condition according to Last Report," another heading "Date of Last Report" being added for evident reasons—thus in No. 2 in my tables there is a history seven years long but I have not heard of the patient since July, 1904. I have also introduced one more heading, "Character of Fibroid," including, of course, the existence or absence of hæmorrhages, for the clinical history of fibroid disease prior to operation is of high importance in this respect. But full menstrual histories from puberty were not always to be obtained, nor is it in every instance possible to determine how far menorrhagia existent from puberty (as in No. 35 in my tables) may represent very early development of the tumour or be explained by other causes. The relation of pregnancy to fibroid disease is uncertain so I have excluded tabulation of children and abortions. Lastly, I have reserved the question of amputation above or below the level of the os internum for the analytical part of the memoir as it involves points of detail not easy to tabulate. When the lower segment of the uterus is not involved it is easy enough for the operator to choose his level, but choice is often impossible when the fibroid lies low in the uterus or occupies the cervix, for even when the uterus is amputated it is not easy to feel sure whether the mucous canal which lies conspicuous on the cut surface of the stump be cervical or uterine.

II. ANALYSIS OF THE TABLES.

Both ovaries removed.—28 cases come under this heading—namely, Cases 1, 2, 3, 4, 5, 6, 10, 12, 13, 14, 16, 23, 25, 26, 28, 29, 30, 31, 33, 35, 36, 37, 38, 41, 42, 44, 47, and 54.

Ages.—From 30 to 35 years, 3 (Cases 14, 33, and 54); from 35 to 40 years, 2 (Cases 26 and 47); from 40 to 45 years, 17 (Cases 1, 2, 3, 4, 6, 12, 13, 16, 25, 28, 31, 35, 36, 38, 41, 42, and 44); from 45 to 50 years, 5 (Cases 5, 10, 23, 29, and 30); and 50 years and over (still menstruating), 1 (Case 37).

Results.—1. Menopause neither immediate nor complete: 3 (Cases 12, 29, and 36). 2. Menopause complete, no symptoms: 6 (Cases 1, 6, 31, 37, 41, and 47). 3. Menopause complete, distinct but mild symptoms: 9 (Cases 2, 4, 5, 13, 16, 23, 28, 33, and 38). 4. Menopause complete, severe symptoms: 10 (Cases 3, 10, 14, 25, 26, 30, 35, 42, 44, and 54).

Analysis of the three cases where the menopause was neither immediate nor complete.—Ages: 2 between 40 and 45 years (Cases 12 and 36), and 1 of the age of 45 years (Case 29). Married or single: 1 married (Case 36) and 2 single (Cases 12 and 29). Hæmorrhages: 1 severe, with great anæmia (Case 36); 1 moderate (Case 12); and 1 none (Case 29). The size of the tumour was big in all three cases; the line of amputation was noted as above the os internum in Cases 12 and 36 and as below in Case 29; the ovaries were normal in all three cases. In this series Case 12 is very interesting. There could be no doubt that the ovaries were completely removed, the ovarian vessels, much enlarged, being ligatured and divided far externally to the limits of ovarian tissue, and there could likewise be no doubt that some of the endometrium was also left behind. There was a show of blood with molimen for two years, often at intervals of five or six weeks, yet the persistent period was accompanied by flushings which ceased when the period itself stopped rather suddenly two years after the operation. Case 36 was somewhat similar but the patient at the time of operation was exceedingly anæmic owing to chronic menorrhagia. Amenorrhœa followed the removal of the diseased uterus and lasted for three months, then the period returned and remained moderate and regular for seven months, becoming afterwards scanty. It was very irregular at the date of the last report. In Case 29, although as in the others the ovaries were completely removed, no endometrium was left, amputation being below the os internum, but possibly the cervical mucosa contained endometric elements just as it may develop decidual cells in pregnancy (Blumberg[11]). The distinct colouration of the mucous discharge at regular intervals points to true menstruation.

Analysis of the six cases where the menopause was complete without symptoms.—Ages: 1 under 40 years (Case 47); 4 between 40 and 45 years (Cases 1,[12] 6, 31, and 41); and 1 aged 50 years, yet still regular at the date of operation (Case 37). Married or single: 4 married (Cases 31, 37, 41, and 47), and 2 single (Cases 1 and 6). Hæmorrhages: Menorrhagia was distinct in Cases 1, 6, and 41, but was absent in Case 37, as it was also in Cases 31 and 47, the patients being pregnant at the time of operation.[13] Size of tumour: Large in all cases, complicated with pregnancy in Cases 31 and 47, and so bulky as to cause dyspnœa in Case 41. Line of amputation: There was a little doubt about Case 41, but in all the remaining five cases, including the two that were gravid, the incision was below the os internum yet flaps of uterine tissue were made. The complete suppression of the catamenia in these cases would seem to imply that the retention of muscular tissue from the uterus without endometrium is insufficient to allow the phenomenon of menstruation to continue. Ovaries: Apparently normal except in Case 1 where one ovary was of the size of a crow's egg and contained an old blood clot.

Analysis of the nine cases where the menopause was complete, with distinct but mild symptoms.—Ages: 1 between 30 and 35 years (Case 33); 6 between 40 and 45 years (Cases 2, 4, 13, 16, 28, and 38); and 2 between 45 and 50 years (Cases 5 and 23). The oldest patient (Case 5) was 49 years of age, yet the flushings went on for three years after the operation. Married or single: 6 married (Cases 2, 5, 13, 16, 33, and 38), and 3 single (Cases 4, 23, and 28). Hæmorrhages: Severe in 4 (Cases 2, 4, 16, and 38); moderate in 3 (Cases 5, 23, and 33); and none in 2 (Cases 13 and 28). Size of tumour: 9 pounds 13 ounces in Case 13; 8 pounds 9 ounces in Case 5; 6 pounds in Case 2; 5 pounds in Case 16; 4 pounds 6 ounces in Case 28; 3½ pounds in Cases 23 and 33; 2 pounds in Case 38; and small (about 1 pound, not weighed) in Case 4. Thus in this sub-series the majority were big; Cases 28, 33, and 38 were very bulky from degenerative changes. In Case 33 an exploratory operation had been performed two years before the hysterectomy. I found two coils of small intestine adherent to the cicatrix in front and to the anterior aspect of the tumour behind, rendering much dissection necessary. Manipulations of abdominal viscera during the separation of adhesions may, of course, prejudice results but in operations on fibroid uteri as compared with ovariotomy they are seldom necessary. Line of amputation: Certainly below the level of the os internum in 4 (Cases, 2, 4,

[7] Lieber so lange als möglich zu konserviren als conservativ zu operiren, loc. cit.

[8] Es sind diese Zahlen zu klein, ibid.

[9] Fibroids of the Uterus and its Ligaments considered from a Clinical and Surgical Standpoint, THE LANCET, Feb 7th (p. 350), 14th (p. 415), and 21st (p. 495), 1903.

[10] The After-Histories of 100 Cases of Supravaginal Hysterectomy for Fibroids, THE LANCET, Feb. 1st, 1902, p. 294.

[11] Ueber Deciduazellen in der Cervix bei intracorporaler Gravidität, Archiv für Gynäkologie, vol. lxxv., 1905, p. 203.

[12] The attacks of syncope to which the patient had been subject before the operation have never recurred. I detailed the case in Fibroids, Heart Disease, Syncope, and Pulse, Journal of Obstetrics and Gynæcology of the British Empire, vol. iii., p. 13.

[13] Neither had suffered from menorrhagia before the operation.

TABLE OF 60 CASES OF SUBTOTAL HYSTERECTOMY WITH TRUSTWORTHY AFTER-HISTORIES.

Case.	Date of operation.	Years of age, &c.	Character of fibroid.	Treatment of ovaries.	Date of last report.	Condition according to last report.
1	March 23rd, 1897.	40, S.	Bulky, pressing down in pelvis; menorrhagia; attacks of syncope.	Both removed (enlarged, hæmatoma in left ovary).	February, 1905.	Good general health. No period since operation, no flushings, and no attacks of syncope.
2	April 10th, 1897.	40, Md.	6 lb.; rapid growth; menorrhagia.	Both removed.	July, 1904.	Good general health. No period since operation; flushings daily for about a year.
3	April 20th, 1897.	42, Md.	Necrotic fibroid; high temperature; hæmorrhages.	Both removed. Incipient cystic changes.	July, 1900.	Good general health. "Period" (?) once seen six months after operation. Severe flushings for 12 months, then complete cessation.
4	Sept. 23rd, 1897.	40, S.	Small tumour; severe menorrhagia.	Both removed. Small cystic degeneration of left ovary.	November, 1904.	Fair health, slightly impaired by hæmorrhoids. No period since operation. Occasional flushings for about two years, now quite ceased.
5	Oct. 5th, 1897.	49, Md.	8 lb. 9 oz.; growing quickly; menorrhagia.	Both removed.	October, 1904.	Good general health. No period; flushings for about three years after operation.
6	March 15th, 1898.	42, S.*	3 lb. 7½ oz.; rapid growth; moderate menorrhagia.	Both removed.	July, 1905.	Good general health; debility for a year after operation. No period seen since operation; never flushings or other menopause symptoms.
7	May 31st, 1898.	40, Md.	4 lb. 1½ oz.; pressure symptoms; hæmorrhages.	One saved (hydrosalpinx opposite side).	May, 1905.	Good general health; corpulence. No period since operation. Occasional flushings at first when fatigued.
8	July 12th, 1898.	40, S.	3 lb. 15 oz.; rapid growth; no menorrhagia.	One saved.	October, 1904.	Good general health. No period since operation; no flushings.
9	Dec. 12th, 1898.	46, S.	2 lb. 14 oz.; very bulky; myomatous degeneration; no menorrhagia.	One saved; removed ovary cirrhotic.	December, 1903.	Good general health; married two and a half years after operation. No period after operation; no flushings.
10	Jan. 26th, 1899.	47, Md.	1 lb. 10 oz. Severe menorrhagia, watery discharge between periods.	Both removed; normal.	June, 1904.	Good general health. No period after operation; severe flushings for two years.
11	Feb. 9th, 1899.	29, S.	Small necrotic fibroid; menorrhagia. Flushings between periods. Irregular pulse.	One saved; opposite ovary cystic.	July, 1904.	Good general health after debility first year. No period after operation. Occasional flushings as before operation during first four years. Pulse became regular after operation.
12	Feb. 21st, 1899.	40, S.	Large fibroid, rapid growth, moderate menorrhagia.	Both removed.	July, 1905.	Good general health. Period persisted for over two years irregularly. After cessation of period no more flushings.
13	April 11th, 1899.	44, Md.	9 lb. 13 oz. (broad ligament); rapid growth; no bleeding.	Both removed.	April, 1905.	Good general health. No period since operation; occasional flushings, worst in third year.
14	May 25th, 1899.	33, S.	4 lb. 12 oz.; bulky; pressure symptoms; no menorrhagia.	Both removed; normal.	February, 1905.	Good general health for last two years. No period since operation; severe flushings and headache for two years.
15	June 1st, 1899.	41, Md.	Fibroma involving cervix; menorrhagia (sickly patient).	One saved (pyosalpinx other side).	March, 1905.	Good general health. No period since operation; no flushings but headaches (cured by glasses relieving defective sight) and epistaxis (as occasionally before operation) with debility for three years. Afterwards excellent health.
16	June 13th, 1899.	40, Md.	5 lb.; cervix involved; much bleeding; anæmia.	Both removed; cystic right ovary.	June, 1902.	Good general health. No period since operation; flushings for about 16 months; anæmia disappeared.
17	June 22nd, 1899.	38, Md.	Small pelvic fibroid; severe dysuria. No menorrhagia.	One saved.	March, 1902.	Good general health. Very slight show with molimen for one year, then total cessation. No flushings.
18	Dec. 29th, 1899.	40, Md.	3 lb. 4 oz.; pressure symptoms; no bleeding.	One saved.	February, 1905.	Good general health but frequently felt weak during first two years. No period since operation; occasional flushings for five years.
19	Jan. 23rd, 1900.	39, S.	Large fibroid involving cervix. Severe menorrhagia.	One saved.	November, 1904.	Died four years and ten months after operation from fibroid phthisis and bronchiectasis existent at the time of the operation. Period regular for two years.
20	Feb. 1st, 1900.	27, Md.	4 lb. 1 oz.; growing quickly; pressure symptoms; menorrhagia.	One saved.	February, 1904.	Good general health. Period regular for two years, then disappeared for six months, and reappeared and remained regular. No flushings.
21	May 10th, 1900.	24, S.	Small fibroid, 14 oz.; severe hæmorrhages.	Both saved.	July, 1903.	Good general health; anæmia disappeared. Period quite regular, no flushings.
22	May 31st, 1900.	36, Md.	Small fibroid; dysuria; no menorrhagia.	One saved (pyosalpinx opposite side).	February, 1904.	Good general health. No period since operation; frequent flushings.
23	May 31st, 1900.	46, S.	3½ lb.; rapid growth; menorrhagia.	Both removed.	May, 1902.	Good general health. No period since operation; flushings one year, then ceased entirely. Tinnitus aurium occasionally.
24	June 2nd, 1900.	46, Md.	Large fibroid, 6 lb.; rapid growth; no menorrhagia.	One saved; removed ovary cystic.	November, 1903.	Good general health. Occasional slight show. Flushings began in second year after operation and are at times severe.
25	June 5th, 1900.	41, S.	Pelvic tumour, 3 lb.; chiefly in cervix; pressing on rectum; no menorrhagia.	Both removed, being cystic.	February, 1904.	Persecutory mania developed a few months after operation (patient had shown signs of mental disease for several years). Now in good health, with occasional delusions. No period since operation.

* This patient was a sister to the patient in Case 12.

TABLE OF 60 CASES OF SUBTOTAL HYSTERECTOMY WITH TRUSTWORTHY AFTER-HISTORIES—*(Continued)*.

Case.	Date of operation.	Years of age, &c	Character of fibroid.	Treatment of ovaries.	Date of last report.	Condition according to last report.
26	June 19th, 1900.	38, Md.	4 lb. 12 oz.; rapid growth; scanty period.	Both removed; right ovary cystic; left hydrosalpinx.	December, 1903.	(Intemperate subject.) Good health for two years. No period since operation. Flushings for three years; intemperate habits then increased. Death from carbolic acid poisoning three years and six months after operation.
27	July 5th, 1900.	38, S.	2 lb. 1 oz.; rapid growth; moderate menorrhagia.	One saved.	July, 1902.	Good general health. Period scanty, irregular. No flushings; occasional headaches.
28	Oct. 11th, 1900.	43, S.	4 lb. 6 oz.; myxomatous; rapid growth; no menorrhagia.	Both removed; cystic.	February, 1904.	Good general health. No period since operation; occasional flushings.
29	Oct. 18th, 1900.	45, S.	11 lb. 1 oz.; pressure symptoms; no menorrhagia.	Both removed.	December, 1903.	Good general health; slight mucous discharge, usually coloured, and distinctly so once in four weeks.
30	Oct. 23rd, 1900.	49, S.	4 lb.; severe pressure symptoms; menorrhagia.	Both removed; right cystic.	November, 1904.	Rather weak; suffers from overwork as a school-teacher. No period since operation; troublesome flushings for two years.
31	Nov. 1st, 1900.	40, Md.	Fibroid obstructing pregnancy, fifth month.	Both removed.	November, 1903.	Good general health. No period since operation; no menopause symptoms.
32	Nov. 20th, 1900.	42, S.	3 lb. 11 oz.; cervix involved. Rapid growth; no menorrhagia.	One saved.	February, 1904.	Good general health. No period since operation; frequent rather severe flushings.
33	Dec. 20th, 1900.	32, Md.	3½ lb.; rapid growth; menorrhagia; strong adhesions to small intestine and cicatrix of former operation.	Both removed; left 2½ inches long.	December, 1904.	Good general health. No period since operation; attacks of flushings and giddiness second year after operation.
34	Jan. 28th, 1901.	42, Md.	Bulky œdematous tumour; no menorrhagia.	One saved.	March, 1904.	Good general health. Period quite regular.
35	Feb. 5th, 1901.	43, Md.	8 lb., large fibroid; menorrhagia from youth.	Both removed; normal.	February, 1904.	Good general health. No period since operation. Flushings severe for two years, now occasional and milder.
36	Feb. 19th, 1901.	42, Md.	2 lb. 10 oz., bulky; severe menorrhagia; anæmia.	Both removed.	May, 1904.	Good general health; anæmia from menorrhagia disappeared. Period reappeared three months after operation and continued regular for seven months; now only occasional show.
37	March 26th, 1901.	50, Md.	2 lb.; rapid growth; broad ligament involved; no menorrhagia.	Both removed.	November, 1904.	Good general health; corpulent. No period since operation; no flushings.
38	April 12th, 1901.	41, Md.	2 lb., very bulky; severe menorrhagia.	Both removed.	February, 1904.	Good general health. No period since operation; attacks of slight flushings and giddiness.
39	April 18th, 1901.	30, S.	Necrotic fibroid infection from adherent intestine. No menorrhagia.	One saved.	September, 1905.	Good general health. Period regular except twice; a severe attack of flushings associated with dyspepsia.
40	May 6th, 1901.	45, Md.	12 lb. 7 oz.; myxomatous degeneration. Occasional hæmorrhages.	Both saved.	March, 1906.	Good general health; corpulent. Period regular three times after operation, then complete cessation; no flushings.
41	May 7th, 1901.	43, Md.	Large tumour; dyspnœa; menorrhagia.	Both removed.	May, 1903.	Good general health. No period since operation. Flushings during convalescence ceased completely.
42	May 30th, 1901.	41, Md.	8 lb. 6 oz. and 1½ pints cystic fluid; rapid growth; menorrhagia.	Both removed. Full of dropsical follicles.	February, 1904.	Good general health. No period since operation; severe flushings for a year or two.
43	June 13th, 1901.	41, S.	3 lb. 12 oz.; rapid growth; pressure symptoms; no menorrhagia.	One saved. Removed ovary was cystic.	June, 1904.	Good general health; corpulent. Period regular though scanty first year, less regular second year, only seen twice third year. Recently slight flushings.
44	July 4th, 1901.	41, S.	2 lb. 11 oz.; severe pressure symptoms; menorrhagia.	Both removed; both cystic; accessory ovary in one ovarian ligament.	February, 1904.	Fair health. No period since the operation; occasional severe flushings with headache.
45	July 11th, 1901.	41, S.	Small; severe pressure symptoms; no menorrhagia.	Part of one ovary saved.	December, 1904.	Good general health. No period since operation; flushings severe and frequent for two years; now milder and less frequent.
46	Nov. 5th, 1901.	45, S.	Painful necrotic myoma; menorrhagia. Neurotic patient.	Both saved.	May, 1904.	Persistence of neurotic symptoms, originating after railway accident 26 years before operation. Period continued until spring of 1903
47	Jan. 7th, 1902.	39, Md.	Large fibroid; pregnancy.	Both removed.	June, 1905.	Good general health. No period since operation; no flushings.
48	Feb. 25th, 1902.	30, Md.	Bulky fibroid, 4 lb. 13 oz.; menorrhagia.	Left saved; cyst of right broad ligament.	February, 1905.	Good general health. No period since operation. Frequent troublesome flushings for about two years, now ceased.
49	March 13th, 1902.	41, S.	Necrotic fibroid, 2 lb. 2 oz., in posterior wall; menorrhagia.	Both saved.	March, 1905.	Good general health. Period still very regular; no flushings, but feels weak when show is present (about two days).
50	April 1st, 1902.	30, Md.	Large fibroid; pregnancy; previous menorrhagia.	Both saved.	April, 1904.	Good general health. Show of blood for five weeks in summer of 1903; none since, but slight molimen at times.
51	April 29th, 1902.	41, S.	Cervical fibroid compressing bladder. Slight menorrhagia.	Left ovary saved.	April, 1905.	Good general health. Period continued regular until August, 1903, when it ceased abruptly. Now suffers every three weeks from headaches and flushings, followed by great relief for a week.

TABLE OF 60 CASES OF SUBTOTAL HYSTERECTOMY WITH TRUSTWORTHY AFTER-HISTORIES—(*Continued*).

Case.	Date of operation.	Years of age, &c.	Character of fibroid.	Treatment of ovaries.	Date of last report.	Condition according to last report.
52	May 29th, 1902.	40, S.	Mass of small fibroids; menorrhagia.	Right ovary saved, left cystic.	May, 1904.	Good general health. Period regular for one and a half years after operation; now six weeks' or longer interval. Show scanty; no flushings.
53	July 17th, 1902.	39, Md.	Large mass of fibroids; menorrhagia.	Both saved.	February, 1905.	Good general health. Period still regular (amenorrhœa for three months in second year after operation). No flushings.
54	Oct. 7th, 1902.	30, Md.	Large fibroid; pregnancy; no previous menorrhagia.	Both removed; normal.	December, 1904.	Good general health. Period never seen since operation. No flushings until 18 months after operation, then they lasted for a few weeks and were for a time severe.
55	Oct. 14th, 1902.	52, S.	5 lb. Large burrowing fibroid; pain; menorrhagia.	Right saved.	February, 1905.	Good general health. No period since operation; no flushings.
56	Oct. 23th, 1902.	46, S.	6¼ lb. tumour; also myoma in mesosalpinx. Pain; menorrhagia.	Right saved.	December, 1904.	Good general health. No period since convalescence; no flushings.
57	Nov. 11th, 1902.	42, S.	Large fibroid, 6 lb. 5 oz.; menorrhagia.	Right saved.	December, 1904.	Good general health. Period began two months after operation; continues regular but scanty.
58	Nov. 20th, 1902.	42, Md.	4¼ lb., bulky; no menorrhagia.	Left saved; removed ovary diseased (see text).	April, 1905.	Good general health. Regular distinct molimen still, but show at period ceased a few months after operation; no flushings.
59	Jan. 5th, 1903.	42, S.	6 lb.; menorrhagia; vomiting at period.	Left saved.	February, 1905.	Good general health. No trace of period since operation; no flushings but occasional sick headache (see text).
60	Feb. 24th, 1903.	44, S.	3 lb., very bulky; originating in cervix; numerous small interstitial fibroids; fibroid polypus in cervix; menorrhagia 18 months.	Right saved.	March, 1905.	Good general health; corpulence. Period regular until November, 1904; not seen since. No menopause symptoms.

16, and 33); certainly above that level in 5 (Cases 5, 13, 23, 28, and 38). Condition of the ovaries removed: Normal in 5 (Cases 2, 5, 13, 23, and 38); one ovary enlarged without cystic degeneration in 1 (Case 33), distinctly cystic in 2 (Cases 16 and 28), and small cystic degeneration marked in 1 (Case 38). Menopause symptoms in these cases: The trouble was confined to flushings in seven out of the nine cases, whilst in Case 23 there were occasional attacks of tinnitus aurium as well, and in Case 33 attacks of vertigo at times accompanied the flushings. Thus in all the nine flushings were noted. This symptom common to all did not appear until the second year in Case 33 and it soon subsided. In Case 13 the symptoms appeared soon after the operation but became more marked in the third year, after which the flushings grew rare. In the remaining seven cases the flushings were experienced soon after the removal of the fibroid uterus and continued for one, two, or even three (Case 5) years but steadily grew less and less marked. Age, it will be seen, bore no evident relation to the symptoms. Two-thirds of the patients were between 40 and 45 years; only one was younger and in her (No. 33) the symptoms were remarkably delayed.

Analysis of the ten cases where the menopause was complete; severe symptoms.—Ages: 2 between 30 and 35 years (Cases 14 and 54); 1 between 35 and 40 years (Case 26, the worst case); 5 between 40 and 45 years—namely, 3 aged 41 years (Cases 25, 42, and 44, including the second case in degree of severity, Case 25), 1 aged 42 years (Case 3), and 1 aged 43 years (Case 35); and 2 between 45 and 50 years (Cases 10 and 30). In the two worst cases the patients were about 40 years of age, in Case 26 the age being 38 years and in Case 25 41 years, but next in order of severity came the two eldest patients, aged 47 years (Case 10) and 49 years (Case 30). Case 10 is apparently the purest instance of severe menopause in the series, for in respect to the others certain complications will presently be noted. Married or single: 6 married (Cases 3, 10, 26, 35, 42, and 54, the last-mentioned patient was pregnant), and 4 single (Cases 14, 25, 30, and 44). Hæmorrhages: None and no menorrhagia in 4 (Cases 14, 25, 26,[14] and 54); present in 6 (Cases 3, 10, 30, 35, 40, and 42). Cases 3 and 10 were very anæmic; the patient in Case 3 was suffering from recent floodings and the tumour was necrotic, while the patient in Case 10 was distressed by menorrhagia, between the attacks much watery discharge of doubtful character being observed, but the patient being free from any sign of malignant disease. In Cases 30, 42, 44, and 35 none of the patients were anæmic, but in Cases 30 and 42 large clots were passed and the patients were laid up at every period, as also in Case 44, where the bleeding was confined to the period, while in Case 35 (in which the tumour was large) the period had been very free from youth.

It is noteworthy that there had been no menorrhagia or intermenstrual hæmorrhages in Cases 25 and 26 where the after-histories were the most unsatisfactory in the entire 60 cases. Size of tumour: The tumours in the majority of the cases in this sub-series of severe menopauses were large. In Case 42 the total weight of the uterus and tumour nearly amounted to 10 pounds, as one and a half pints of cystic fluid were measured and the tumour and uterus weighed 8 pounds 6 ounces; in Case 35 the entire mass weighed 8 pounds; in Case 54 the mass was also very heavy, with a fœtus in the uterine cavity; in the worst case (Case 26) the uterus and tumour weighed 4 pounds 12 ounces and some interstitial fibroids were dissected out of the cervix; in Case 25, another bad one, the tumour weighed 3 pounds and chiefly occupied the wall of the cervix; in Case 14 the mass weighed 4 pounds 12 ounces and was in part cervical; in Case 30, 4 pounds; in Case 44, 2 pounds 11 ounces; in Case 10, 1 pound 10 ounces; and lastly, in Case 3 the mass, which was not weighed, extended upwards to within an inch of the level of the umbilicus and was necrotic. Thus in the majority of these bad cases the tumour was large, whilst pressure symptoms were marked in Cases 14, 25, 30, and 44, where at least in three the growth was relatively small. Line of amputation: Certainly below the os internum in six (Cases 14, 25, 30, 35, 44, and 54). As for the remaining four cases, muscular tissue was certainly left in the flaps but I cannot feel sure about the level of amputation; these four (Cases 3, 10, 26, and 42) include the worst—namely, Case 26, as to which I noted in my case-book: "Uterine muscular tissue in the anterior flap, a fibroid of the size of a pigeon's egg shelled out of cervix posteriorly." I have on more than one occasion done an enucleation of this kind after intentionally amputating above the os internum. In Case 25 I noted distinctly "cervical amputation, but uterine tissue in flaps," thus, as in Cases 14, 30, 35, 44, and 54, no endometrium was left but I cannot feel sure in which of the other cases any endometrium remained. Condition of ovaries removed: In the two worst cases, both ovaries were distinctly cystic in Case 25 and one was cystic in Case 26. The same was the case in

[14] One of the only cases of an approach to amenorrhœa in the whole series.

four others (Cases 3, 30,[18] 42, and 44). In one ovarian ligament (Case 44) I found an accessory ovary, a condition which may in some cases explain the persistence of menstruation and the possibility of normal pregnancy after the removal of both ovaries in operations for ovarian tumours, inflammatory disorders of the appendages, and ectopic gestation. The ovaries were free from any morbid appearance in Cases 10, 14, 35, and 54. Menopause symptoms in these cases: In two patients these symptoms were associated with mental disease. The patient in Case 26 was an eccentric and intemperate subject who, reforming for a while after convalescence, resumed her bad habits about three years after the operation, when the flushings which had troubled her had ceased. At the end of six months she drank carbolic acid, probably with suicidal intent, and the dose proved fatal. She was relatively young, being 38 years of age. The appendages were diseased so that I deemed it safer to remove both. In Case 25 the patient was an intellectual woman of cheerful disposition, not alcoholic, aged 41 years. Neither she nor those of her relatives whom I saw before the operation informed me that she had already been mentally afflicted. The ovaries which I removed were decidedly cystic. In the autumn of 1900, about five months after the operation, she suspected a relative of an intent to murder her. The delusion passed away, occasionally returning. In this case there was no trouble from flushings. Dr. Thomas's tables also include two cases of insanity. In the first the patient's mental condition was unstable and the operator saved both ovaries. Melancholia developed three years after the operation. Seeing that the patient was highly neurotic I was very particular about the ovaries in Case 46. I saved them and the long-standing neurotic symptoms have not been complicated by insanity, yet Dr. Thomas's case did badly although the ovaries were saved. In his second case both ovaries were removed from a patient who seemed perfectly sane. She was a lady's maid and within two years of the operation her mistress died suddenly, the shock of which was the immediate cause of insanity and she was admitted into an asylum. It is hardly possible to determine the precise relation between the operation and the mental disease in Cases 25 and 26. Mental symptoms may follow any kind of operation. They are by no means rare after ovariotomy and operations on the appendages where psychoses are frequently pre-existent. But women are subject during sexual life to many influences prejudicial to sanity. This was the case in No. 26 where intemperance was evident but it may be overlooked, as in two cases of pelvic surgery within my own knowledge, where it transpired that the patients had been exposed to much domestic worry. Temporary melancholia developed after the operation. In other cases the true cause may remain undiscovered, the operation receiving the blame.

Case 6[16] shows the great importance of a long and accurate after-history when rumours of mental disease get about. The patient after convalescence disagreed with her relatives and went to live with a friend, with whom she had only recently become acquainted, far from her home. Her friends drew conclusions about her mental condition which proved to be unfounded. I was under the impression that she might be mentally affected when I delivered my Harveian lectures, but early in 1905 the patient consulted me and I found that she had been in perfect mental and bodily health ever since the hysterectomy and free from any menopause symptoms.

Lucien Picqué, who discovered that 89 per cent. of insane women under his observation were subject to gynecological affections not all due to septic influences, lays great stress on infection as the cause of puerperal mania.[17] Possibly infection of ligatures may play a share in causing insanity after operations on uterine and ovarian tumours.

In respect to the eight remaining cases it will be seen that the severe menopause symptoms were limited to flushings which did not appear until 18 months after the operation in one case (Case 54). That patient was the youngest; the next in years (Case 14) was 33 years of age. It is noteworthy that all the remainder, except the worst case (Case 26, aged 38 years), were over 40 years and that the eldest (Case 30, aged 49 years), suffered severely from flushings; her health, however, was much impaired by overwork and anxiety. Thus in this sub-series it was not the youngest patients who suffered most.

In none of the above 28 cases where both ovaries were removed were any symptoms observed indicating the development of cardiac mischief after the operation.[19]

One ovary saved.—26 cases come under this heading—namely, Cases 7, 8, 9, 11, 15, 17, 18, 19, 20, 22, 24, 27, 32, 34, 39, 43, 45 (part of one ovary only), 48, 51, 52, 55, 56, 57, 58, 59, and 60.

Ages.—Under 30 years, 2, Cases 11 (29 years) and 20 (27 years); from 30 to 35 years, 2, Cases 39 and 48 (both 30 years of age); from 35 to 40 years, 4, Cases 17 (38 years), 19 (39 years), 22 (36 years), and 27 (38 years); from 40 to 45 years, 14, Cases 7, 8, 18, and 52 (all 40 years), Cases 15, 43, 45, and 51 (all 41 years), Cases 32, 34, 57, 58, and 59 (all 42 years), and Case 60 (44 years); from 45 to 50 years, 3, Cases 9, 24, and 56 (all 46 years); and over 50 years, 1, Case 55.

Results.—1. Catamenia regular for a longer or shorter period after operation: 8 (Cases 19, 34, 39, 43, 51, 52, 57, and 60). 2. Catamenia appearing after operation, but irregular: 5 (Cases 17, 20,[19] 24, 27, and 58). 3. Menopause complete and immediate after operation: 13 (Cases 7, 8, 9, 11, 15, 18, 22, 32, 45, 48, 55, 56, and 59).

Analysis of the eight cases where the catamenia were regular for a longer or shorter period after operation.—Ages: 1 between 30 and 35 years (Case 39, aged 30 years); 1 between 35 and 40 years (Case 19); and 6 between 40 and 45 years (Cases 34, 43, 51, 52, 57, and 60). It will be seen that amongst the 13 cases where the menopause was complete the majority, seven, were also between 40 and 45 years of age. Married or single: Only 1 patient (Case 34) was married, the others being single (Cases 19, 39, 43, 51, 52, 57, and 60). Hæmorrhages: Severe menorrhagia, 2 (Cases 19 and 52); slight in 3 (Cases 51, 57, and 60—in the last there was a fibrous polypus of the cervix); none in 3 (Cases 34, 39, and 43). Size of tumour: Large in 5, Cases 57 (6 pounds 5 ounces), 43 (3 pounds 12 ounces, bulky, with pressure on the pelvic organs, and extending to above the umbilical level), 34 (bulky and œdematous), 19 (large, including part of the cervix), and 60 (very bulky, involving the cervix but not exceeding 3 pounds in weight); of moderate size, infected from intestinal adhesions,[20] and possibly congenital malformation, 1, Case 39; small, chiefly cervical pressing on the bladder, 1, Case 51; and with mass of small fibroids, 1 (Case 52). Line of amputation: Designedly above the os internum in 7 (Cases 19, 34, 39, 43, 51, 52, and 60[21]); "uterine flaps," 1 (Case 57). These results are important, as in the great majority of the cases where I designedly amputated above the level of the os internum and made note of the fact the catamenia persisted for some time after the removal of the fibroid uterus.

Menopause symptoms in these cases.—In three—namely, Cases 34, 39, and 57—the period was persistent according to the last report; in Case 39 the patient had an attack of flushing of the face associated with dyspepsia probably caused by excessive tea-drinking; in Case 19 amenorrhœa set in two years after the operation, clearly owing in great part to pulmonary disease, and there were no menopause symptoms; in Cases 52 and 60 the period began to grow scanty in the course of the second year without symptoms; in Case 43 the period began to cease in the third year and mild flushings were noted. In Case 51 a phenomenon unique in its entire series was shown. There was regular show for 16 months. From that date until the last report, three years after the operation, slight headache and flushings occur with perfect regularity every three weeks and on ceasing the patient feels a sense of relief just as was the case when the catamenia were normal. Condition of the ovary removed: Normal in 5 (Cases 34, 39, 51, 57, and 60); cirrhosed in 1 (Case 19); and cystic in 2 (Cases 43 and 52).

Analysis of the five cases where the catamenia appeared after operation but were irregular.—Ages: 1 between 25 and 30 years (Case 20); 2 between 35 and 40 years (Cases 17

[18] There was some uncertainty about the condition of the left ovary in this case.

[16] A sister to the patient in Case 12. I performed hysterectomy for fibroid on a third sister last summer but, of course, the case is too recent for inclusion in the series.

[17] Considérations sur les Psychoses Post-partum (Fausses Aliénées et Folie Viscérale), L'Obstétrique, March, 1905, p. 161.

[18] See Pollak (reference further on under heading "General Health of the Patients," footnote).

[19] As will be explained Case 20 might be included in the first division as the period returned and continues.

[20] Sloughing Fibroid of the Left Uterine Cornu, Abnormal Relations, by Alban Doran and Cuthbert Lockyer, M.D. Transactions of the Obstetrical Society, vol. xliii., 1901, p. 272. This communication includes a drawing of the tumour.

[21] The lower part of the myoma was enucleated from the cervix and the uterus amputated above the os internum.

and 27); 1 between 40 and 45 years (Case 58); and 1 between 45 and 50 years (Case 24). Married or single: 4 married and 1 (Case 27) single. Hæmorrhages: 1 distinct menorrhagia (Case 20); 1 moderate (Case 27); and none in Cases 17, 24, and 58. Size of tumour: 6 pounds in 1 (Case 24); over 4 pounds in 2 (Cases 20 and 57); small bleeding tumour in 1 (Case 27); and small pelvic tumour causing dysuria in 1 (Case 17). Line of amputation: all divided above the os internum. "Much uterine tissue" was left in Case 20. Condition of the ovary removed: normal in 3 (Cases 17, 20, and 27); small cystic degeneration in 1 (Case 24); and "cartilaginous hardness," according to a report by Dr. Cuthbert Lockyer, in 1 (Case 58). Menopause symptoms in these cases: Case 20 should perhaps come under the first class in this sub-series, as the period continues four years after the operation, but there was amenorrhœa for six months in the second year unaccompanied by flushings. Temporary amenorrhœa, it will be seen, occurred in Case 53, where both ovaries were saved. In Case 58 the result was remarkable; a periodical show of blood was seen regularly for five or six months after the operation, then it ceased entirely, but up to the date of the last report the menstrual molimen was felt with perfect regularity. This interesting phenomenon has lasted for two years. No flushings or other general symptoms have been noted. In Case 17, a woman, aged 38 years, the catamenia were regular though scanty for a year, then they vanished abruptly; no troublesome symptoms followed. In Case 27 the catamenia continued scanty and irregular for at least two years, without attacks of flushings. The patient suffered from headaches but the cause was uncertain. In Case 24 there was still occasional slight show over three years after the operation when the patient had reached the age of 49 years. Flushings, often troublesome, began in the second year, when the patient was about 43, and continued troublesome at the date of the last report. The menopause was probably normal in this instance.

Analysis of the 13 cases where the menopause was complete and immediate after operation.—Ages: 1 between 25 and 30 years (Case 11); 1 between 30 and 35 years (Case 43); 1 between 35 and 40 years (Case 22); 7 between 40 and 45 years (Cases 7, 8, 15, 18 32, 45, and 59); 2 between 45 and 50 years (Cases 9 and 56); and lastly, 1 aged 52 years (Case 55). The last case was an instance of a not rare condition, deferred menopause associated with fibrous disease. Married or single: 5 married (Cases 7, 15, 18, 22, and 43) and 8 single (Cases 8, 9, 11, 32, 45, 55, 56, and 59). Hæmorrhages: Severe in 1 (Case 7); free menorrhagia in 6 (Cases 11, 15, 43, 55, 56, and 59); and no bleeding of any kind in 6 (Cases 8, 9, 18, 22, 32, and 45). Size of tumour: very large, over 6 pounds, in 2 (Cases 56 and 59); bulky or heavy in 7 (Cases 7, 8, 9, 18, 32, 43, and 55); and small in 4 (Cases 11, 15, 22, and 45). Line of amputation: designedly above the os internum in 8 (Cases 11, 15, 18, 45, 43, 55, 56, and 59); below the os internum, but with flap of uterine tissue in 5 (Cases 7, 8, 9, 22, and 32). In Case 22, I may observe, the knife passed through the cervix quite a quarter of an inch below the os internum, whilst there were flaps fashioned out of the muscular wall of the uterus; in other words, there was uterine tissue but no endometrium. Yet, although the patient was a married woman only 36 years of age, the period never reappeared after the operation. This case seems to offer negative evidence in support of the Abel-Zweifel theory. Condition of the ovary removed: normal in 7 (Cases 8, 18, 32, 45, 55, 56, and 59); removed with diseased tube in 3, Cases 7[23] (hydrosalpinx), 15, and 22 (both pyosalpinx); cirrhotic in 1 (Case 9); and cystic in 2 (Cases 11 and 43) (in the latter case a cyst had developed in the broad ligament). Menopause symptoms in these cases: in four cases there were no symptoms (Cases 8, 9, 55, and 56); in two cases the symptoms which followed had existed before operation; the first (Case 15) was subject to epistaxis which still occasionally occurs, and the patient complained of headache about a year after operation, but I detected hypermetropia and the symptom disappeared when she made use of appropriate glasses; in the second (Case 59) the patient was a very neurotic subject who had suffered for a long time from sick headaches which have not disappeared. Mild but distinct menopause symptoms were observed in three cases (Cases 7, 11,[23] and 18). In Case 7 the patient became very corpulent. In Case 18 the persistence of slight attacks of flushing for five years was singular; they had been absent for two months according to the last report. The debility, or "all-overishness" as she termed it, must be reckoned as in all probability a menopause symptom. The patient in Case 11 was highly neurotic and she had been much distressed by flushings for some time before the uterus was removed. They continued for five years and were attended during the first 12 months with debility. The flushings have entirely disappeared, according to the last report, when the patient was 34 years of age. In four cases the menopause symptoms were more marked; these were Cases 22, 32, 45, and 48, but on inspecting the tables it will be seen that the symptoms were practically confined to severe flushings. In Case 45, let it be remembered, only a portion of one ovary was left behind.

None of the graver symptoms observed in some of the cases, where complete menopause followed hysterectomy with removal of both ovaries, were noted in the above series.

Both ovaries saved.—Six cases come under this heading—namely, Cases 21, 40, 46, 49, 50, and 53. In 1903 and 1904 I saved the ovary in over ten cases, but the histories are too short to be of trustworthy value. Unfortunately, I have lost sight of some other cases over two years old. I doubt whether there be any special advantage in leaving both ovaries, since one is quite sufficient for physiological purposes. In Case 46 the patient was very neurotic and in Case 21 very young (aged 24 years) and I thought it judicious to save both organs as one alone might for some reason prove insufficient, a specially undesirable result in either case. In Case 11, another neurotic patient, I would have saved both ovaries, but was obliged to take away one as it was diseased. The patient in Case 50 was operated upon during pregnancy and I wished to take away as little as possible; the nature and relations of the tumour allowed of the saving of both ovaries. This latter condition also prevailed in Cases 40, 49, and 53. In Case 40, where the tumour was very large, it happened that the two ovaries, quite healthy, stood well out from the lower part of the bulky tumour, but this is not the rule in cases of fibromyoma of great size.

Ages.—1 patient was but 24 years old (Case 21, the youngest in the entire table); 1 was 30 years (Case 50, in which the patient was pregnant); 1 was 39 years (Case 53); the remaining three were all between 40 and 45 years of age, the two eldest (Cases 40 and 46) being 45 years; whilst the third (Case 49) was 41 years. Thus this sub-series includes relatively the youngest patients.

Results.—1. Catamenia regular after operation, 3 (Cases 21, 49, and 53). 2. Catamenia soon suppressed, 2 (Cases 40 and 46). 3. Menopause complete and immediate after operation, 1 (Case 50).

Analysis of the three cases in which the catamenia were regular after operation.—Ages: 1 aged 24 years (Case 21); 1 aged 39 years (Case 53); and one aged 41 years (Case 49). Married or single: 1 married (Case 53) and 2 single (Cases 21 and 49). Hæmorrhages: in all three cases; in Case 21 there were much bleeding between periods and great anæmia. Size of tumour: a large mass of subserous fibroids (Case 53); necrotic tumour, 2 pounds 2 ounces in weight (Case 49); and small, 14 ounces (Case 21). Line of amputation: designedly above the os internum in 2 (Cases 21 and 49); probably below, with uterine flaps, in 1 (Case 53). Catamenia: in Case 21 the period was regular over three years after the hysterectomy, without any flushings or other disagreeable symptoms. In Case 49 it was also regular three years after the operation; there were no flushings but the patient felt weak whilst there was show. Let it be noted that in these two cases of uninterrupted catamenia the uterus was amputated above the os internum. This supports the hypothesis that the flow is derived from the endometrium influenced by the ovaries. In Case 53 the period was still regular nearly three years after the operation but, as in Case 20, where one ovary was saved, there was temporary amenorrhœa, occurring for three months in the course of the second year (in Case 20 the period was absent for six months). Bearing in mind also Case 54, where both ovaries were removed with complete and immediate suppression of the catamenia, yet absence of menopause symptoms for 18 months, the necessity for a fairly long after-history is very clear. In Case 53 the patient has not suffered from flushings.

[23] The ovary not removed was flattened against the bony pelvis and possibly atrophied.

[23] The pulse, which I frequently counted before I decided to operate, was 90 and distinctly irregular. There was no evidence of heart disease. After the operation it at once became and remained regular. I have already noted this case in an article on Fibroids in Relation to the Circulation (vide supra note on Case 1).

Analysis of the two cases where the catamenia were soon suppressed.—Ages: Both 45 years. Married or single: 1 (Case 40) married and 1 (Case 46) single. Hæmorrhages: in both cases, severe in Case 46. Size of tumour: very large, 12 pounds 7 ounces in weight in 1 (Case 40); and a small pelvic mass pressing on the bladder in 1 (Case 46). Line of amputation: designedly above the os internum in 1 (Case 40); and apparently below in 1 (Case 46). Nature of menopause: in Case 40 the period occurred three times after the operation and then ceased abruptly, no flushings followed, and nearly four years later the patient was in good health. In Case 46 the catamenia continued for 18 months, ceasing abruptly. A year after the menopause the patient was free from any special symptoms. I suspect that some endometrium must have been left behind. I noted in my case-book at the time that the incision was carried low down but the fibroid was a small spherical tumour and in the course of an operation it is not always easy to make sure that the knife passes above or below the os internum. The importance of avoiding any increase of the neurotic symptoms in this case was evident, and they have not been increased.

Analysis of the case where the menopause was complete and immediate.—The patient in Case 50 was 30 years of age, married and pregnant; before gestation she had been subject to menorrhagia. The tumour was large, the line of amputation probably below the level of the os internum. No period occurred but there was a little show of blood for five weeks about 14 months after the operation. It is doubtful if this show could be reckoned as catamenial. Nearly one year later it had not recurred, there was no evidence of malignancy, but the patient was under the impression that she occasionally felt a slight molimen. Perhaps this case might best be ranked with Nos. 40 and 46.

Menopause symptoms and age.—It is in well-tabulated after-histories of double ovariotomy, not rare in youth, that we must seek for evidence as to the effects of removal of both ovaries in young women. Such evidence in series of amputations of both appendages for inflammatory disease or neuroses is, in my opinion, absolutely untrustworthy as it is never clear that all ovarian tissue has been removed; indeed, an ovarian cyst may develop on the distal side of a ligatured stump and even pregnancy is not unknown.[24]

In subtotal hysterectomy for fibroid there should be no difficulty about correct reporting of the treatment of the ovaries, for when the operator decides upon removing them he ties their arteries far outside their external limits and takes them away with the uterus, including the entire ovarian ligament, the commonest seat of ovarian tissue beyond the ovary proper. On the other hand, when an ovary is spared it is done designedly and recorded accordingly. Unfortunately, in cases where this operation is undertaken the patients are rarely young and mostly within the later years of sexual life, so that the number of young cases is too limited to be of much value. Thus in these tables no less than 35 patients were from 40 to 45 (inclusive) years of age and nine were older. Against these 44 only 16 were under 40 years. Out of these 16 young subjects it will be seen that I have saved one or both ovaries in 11. It will be found on reference to the tables and analyses above that the younger patients, Cases 21 (aged 24 years), 20 (aged 27 years), 11 (aged 29 years), and 39, 48, and 50 (all aged 30 years) fared well except that there was no period after operation in Case 11, whilst there were severe flushings as well as total cessation of period in Case 48. Both in Cases 11 and 48 the line of amputation was designedly above the os internum. Five more relatively young cases remain where ovarian tissue was saved, Cases 22 (aged 36 years), 17 and 27 (aged 38 years), and 19 and 53 (aged 39 years). In Case 22 severe flushings occurred; the catamenia were completely suppressed by the operation; the others did not suffer in any way.

In five out of the 16 young subjects both ovaries were removed (Cases 14, 26, 33, 47, and 54). The youngest was 30 years of age (Case 54); she comes under the "severe menopause symptoms" class and it is worth noting that the flushings did not appear until 18 months after the operation. The next (Case 33) is ranked above under the "mild symptoms" class; she was 32 years of age. The third (Case 14) was 33 years old; in her case the symptoms were severe. In Case 47 the patient had no symptoms but she had reached the age of 39 years and cannot be reckoned as very young; the same may be said of the gravest case under 40 years and indeed in the whole series—namely, Case 26, where the patient was 38 years old and was neurotic and intemperate.

The above analysis shows that I spared one or both ovaries in all the cases under 30 years of age with good results and also saved ovarian tissue in several other relatively young subjects with benefit; and it may be assumed that the patients would have not done so well had I sacrificed both ovaries. In fact, I acted expressly on that principle. In the five cases where I was compelled to amputate both ovaries there were bad symptoms in three but the worst was intemperate and not so very young.

Supposing that both ovaries had been diseased in ten or twelve subjects under 35 years of age in this series and that both had been removed on that account the results might have thrown more light on the gravity of their extirpation in young subjects, but such was not the case. In short, I feel compelled to end these observations as I began them by stating that it is not from statistics of hysterectomy that we can learn much of definite value about this serious question.

General health of the patients.—It will be seen from these tables that the great majority of the 60 patients enjoyed good health when last heard of, two years or more after the operation. Independently of catamenial disturbance in only seven were the after-histories unsatisfactory as regards the general health of the patient.[25] Some scrutiny of these seven after-histories is requisite. The first of the seven is Case 19 but the death of the patient nearly five years after the operation was due to fibroid phthisis. She certainly derived benefit from the removal of the tumour, as the menorrhagia which exhausted her was stopped and she was able notwithstanding the pulmonary complication to return for a while to her duties as a hospital nurse. In two cases the patient's relative ill-health at the last report was due to complications. In Case 4 the patient was troubled for some time with hæmorrhoids, much neglected, and in 1904 underwent an operation for their cure. Case 26 was a chronic "railway case"; the patient's health was distinctly improved by the suppression of the menorrhagia after the operation. There remain four cases where the operation must have had a more or less direct relation to the result. In Case 44 the flushings were very distressing at times and the patient being relatively young and quite healthy I believe that the slightly impaired health was at least mainly due to loss of the ovaries. In Case 30 the patient suffered from much debility, more or less associated with the flushings, and I cannot explain the results away, but I may justly add that the patient was old already and that she was very much overworked after convalescence. That the mental symptoms in Case 25 were excited by the operation there can be no doubt. I was quite unaware when I performed it that the patient had already been under restraint. Case 26 was one of removal of a rapidly increasing fibroid from a florid woman of intemperate habits. She was given to seek relief in alcohol from all ills, including the flushings. The poisoning was probably suicidal, not accidental. As the patient was only 38 years of age the flushing, of course, represented a premature menopause induced by the operation. The other circumstances of essential importance in respect to Cases 25 and 26 are explained in the above analysis of the tables.

III.—GENERAL CONSIDERATIONS.

The results in these 60 cases can hardly be said to prejudice subtotal hysterectomy as an operation, whilst they decidedly favour the conservative treatment of the ovaries or, more correctly, of ovarian tissue. They likewise, in my opinion, tend to support the Abel-Zweifel theory that it is necessary to spare some endometrium as well as some ovarian tissue, or, speaking surgically, that the uterus should be amputated above the os internum in order to insure the patient as much as possible against the disadvantages of a sudden artificial menopause. I should like to hear of a similar analysis of 60 cases of panhysterectomy for fibroid, where of necessity no trace of endometrium can be preserved.

[24] See Doran: Pregnancy after Removal of Both Ovaries, Transactions of the Obstetrical Society, vol. xliv., 1902, p. 251, and Meredith, Pregnancy after Removal of Both Ovaries, Brit. Med. Jour., vol. i., 1904, p. 1360.

[25] Pollak (Die anticipirte Klimax und ihre nächsten Folgen für den Organismus, Monatsschrift für Geburtshülfe und Gynäkologie, vol. xxii., September, 1905, p. 327) has detected fatty changes in the myocardium of castrated female animals and on that account advises women who have undergone any operation entailing the loss of both ovaries to be careful for some time after convalescence. I have not observed evidence of fatty heart in any of the cases in this series where both ovaries were removed.

It may be objected that in many of the cases in my series where the uterus was amputated above the internal os, and where ovarian tissue was saved, the desired result did not occur. As I do not hold a brief for the Abel-Zweifel theory I am quite ready to admit that in these instances it is not supported, but in fairness to that theory it may be contended that the endometrium left behind might have been so much diseased in some of these cases, so much damaged in the course of operation in others, and so freely destroyed in the course of cicatrisation of the stump in the remainder, that its functions could not be continued.

There can be no doubt that it is from the endometrium that the menstrual blood usually proceeds when menstruation persists after subtotal hysterectomy. Tuffier has published a report of 32 cases where he removed the Fallopian tubes for inflammatory disease, saving the ovaries as well as the uterus.[28] Menstruation continued though the uterus was cut off from the ovaries. The blood was discharged from the endometrium entire and intact. In conservative subtotal hysterectomy the stump of the uterus is also cut off from the ovaries, yet the fragment of endometrium which it contains often discharges menstrual blood with more or less regularity.

When menstrual blood appears after amputation below the os internum it may, as has been suggested above, proceed from endometric elements in the cervical mucosa. The remarkable phenomenon observed in Cases 12 and 36 shows that endometrium alone may discharge part of the functions of menstruation entirely without the aid of the ovaries. If so, the theory to which I have alluded must be very near the truth and possibly this phenomenon may explain some of the once familiar failures following the operation of removal of the ovaries for the "cure" of bleeding fibroids. Physiologists, however, have not clearly demonstrated the precise nature of the various changes in the ovaries and endometrium which together constitute menstruation.

I trust that it will be understood that I have not endeavoured to magnify the importance of good results or to argue away bad results in order to strengthen a plea for subtotal hysterectomy. After all, it is the menopause question which is first to be taken into account after operative risks and complications have passed away. Hence, wherever in these 60 cases there was a troublesome train of menopause symptoms the result was so far bad independently of the fact that the tumour was removed and the general health after its removal good. How to get rid of a uterine fibromyoma and also to avoid such symptoms entirely is a problem not yet settled and I trust that this communication may contribute to its solution.

In conclusion, I must observe that many other questions associated with fibroids and their treatment may be suggested by these statistics, but their discussion is beyond the limits of this paper. The preparation of these tables has proved a far harder task than I anticipated and my thanks are due to Sister Phillips, for 13 years head nurse in my wards in the Samaritan Free Hospital, and to the medical attendants of the private cases for invaluable assistance in obtaining after-histories. The practitioner and the medical officer in out-patient departments of hospitals can furnish important information to operators who wish to determine how far hysterectomy for fibroid is of lasting benefit to the patient.

[28] Conservations des Ovaires et de l'Utérus dans les Opérations pour Annexites. Revue de Gynécologie et de Chirurgie Abdominale, July-August, 1905, p. 723.

X RAYS IN THE TREATMENT OF CANCER.

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THERE are many medical practitioners at the present time who have gradually come round to the belief that the x rays can effect some good in the treatment of cancer. Among those who have followed the results of treatment which have been reported from time to time in the medical journals or who have had the opportunity of personally testing its value the general impression is that it is of great therapeutical value. There is no doubt that there have been very many failures in the past but it must be borne in mind that the majority of these failures occurred when we were using very imperfect and untrustworthy apparatus and when our experience was but small regarding the effects which could be produced. Another cause of failure in the early days of x ray therapeutics was that many cases that were declared by the surgeon to be inoperable were sent to the x ray practitioner. Increased knowledge of the capabilities of the x rays has led surgeons to send to the radiographer patients who had a fair chance of life for, say, six months or more; in these one has been able to obtain a goodly number of encouraging results.

Gross failures are not reported here, as at the present time there is little to learn from them, for until quite recently cases of cancer were only sent to the electro-therapeutist for x ray treatment when they had already become "derelicts" to the knife or any other form of treatment. The custom of sending post-operative cases for treatment when the recurrence is as great in amount as, or greater than, the original condition at operation is quite absurd and has certainly accounted for many failures in the past; on the other hand, some patients will not persevere in consequence of their generally feeling and looking much better and locally being in an improved condition they discontinue the treatment. Another cause of failure is too energetic treatment and one is led to think that in many of the earlier cases the healthy parts instead of being stimulated to resist the inroads of the cancer were exhausted and ultimately rendered inert, consequently the growth advanced even more rapidly than before. It is not, in my opinion, good practice to shield the surrounding area in most cases, as the unshielded rays have a chance of reaching remote parts that, unknown to us, may be affected; but it seems possible that a layer of dry lint or other "stuff," which is transparent to the rays, placed over the whole part lessens the tendency to dermatitis—at least, that is my experience after a fairly extensive trial with various materials.

A certain amount of selection is nowadays required for the effectual application of x rays. Broadly speaking, the more recent the growth the greater the chance of a favourable result. Cancerous ulcerations, primary or secondary, can be made to heal very readily and it is often astonishing with what rapidity they close in. Many cases of sarcoma, even of large size, have been recorded that have disappeared under the x rays; this is especially the case in recent sarcomatous growths of the young. In the majority of cases that I have had to treat where there was much glandular enlargement it is a curious fact to note that the glands actually infected became of stony hardness before they disappeared. One has so often seen the glands depart in such cases that I am led to the conclusion that frequently they are only affected with a simple *inflammation* from irritation of the secretions of the original growth and not from actual *infection*. In Case 7 (see below) there may be a doubt if the glands though greatly enlarged were actually infected. Another patient had the glands enlarged many months after the breast had been removed and the resulting scar was white and perfect; these were undoubtedly infected but readily disappeared with a few months' treatment, though this patient succumbed to a recurrence 11 months after, during which time no x rays were applied. In one patient, a woman, aged 48 years, who had a primary carcinoma of the left mamma, quite two-thirds of the gland were involved and there were many lumps in the axilla which practically filled that space. She had refused any operative measure. Under x rays, administered for three times a week for over four months, the lumps cleared up and the breast contained a hard tumour much less than half the whole gland; this was then removed and was proved to be an ordinary scirrhous carcinoma. This patient has been since October, 1903, and is at the present time, in excellent health.

The above and other cases which have been reported seem to point to the advisability of x rays being used in all cancerous cases before operation, for even a few weeks will tend to arrest further infection, and the glands if enlarged with simple inflammation or only slightly affected may disappear with a certain amount of shrinkage of the original tumour. It is becoming admitted that cases should be treated by the rays after operation to prevent a recurrence and if used to prevent a recurrence why should they not be used at the very earliest occurrence, especially during that period, sometimes weeks, during which the patient is being prepared for operation? In skilled medical hands it is a treatment absolutely painless and free from danger. Again,

in extreme ulcerations with sloughing fœtid discharge there is not the slightest doubt that the offensiveness can be allayed if not made to vanish entirely.

The cases on which these notes are based were all of undoubted cancer, as will be seen from the pathological reports and microscopical evidence which are furnished in each case. I have purposely excluded rodent ulcer as it is common knowledge that that affection is readily cured by this form of treatment. My cases have nearly all been operated upon and the disease had recurred, some only locally; others were accompanied with glandular enlargement. The best cases for the x rays are those in which the disease is strictly local, as in epithelioma of the lip, or has recurred in the scar in the shape of small lumps with the glands not largely affected. In some the better treatment may have been another operation but the patients very naturally shrank from further operative measures after the second or third operation. Even in primary cases where the patient from either age or other causes refuses operation then much may be effected by x ray treatment. In nearly all patients pain can be alleviated and reduced to a bearable quantity even when the growth is of the most extensive nature. The actual bulk of the growth is very frequently reduced—this may possibly take place by allaying the irritation and thus getting rid of simple inflammatory products. The mere fact that something is being attempted for the patients has an extraordinary effect on the mind of the patients and very materially assists them to bear their burden.

One is often asked when should x rays be tried? The answer is, in my opinion, directly the diagnosis is made, whether the case is to go to operation or not. After operation, directly the scar is healed or even before that time if it shows the slightest appearance of being sluggish in the healing, a nodule of the size of a pea should have immediate treatment whether in the scar or not; this requires for its proper fulfilment constant observation by the medical attendant. A weekly examination is of the utmost importance to the patient. Even healthy wounds will heal the more readily under the stimulation of x rays cautiously applied and in small doses, sufficient protection to the surrounding parts being all that is necessary. This form of treatment can only be applied with any degree of safety by medical practitioners; some terrible results have occurred in the hands of laymen and this fact has probably deterred patients and their advisers from taking full advantage of such suitable measures. One cannot promise, except in small superficial growths, a cure, but one can almost invariably obtain a measure of alleviation. I am chary of using the word "cure" to cases of cancer which have been under the x rays but arrest and alleviation are terms which may be fairly used. My usual method is to treat the patient on several days a week to short exposures (from five to ten minutes) with the tube at a varying distance according to the quality and quantity of its discharge, &c., generally at a distance of from two inches to 12 inches from the skin, in order to produce the effect desired. If septic symptoms arise they are treated in the usual way, sometimes allowing a greater interval between each further application.

CASE 1.—The patient was a woman, aged 64 years. She attended at St. George's Hospital in March, 1899, for a tumour in the right breast. She was admitted under the care of Mr. J. W. Haward who removed the breast containing a scirrhous carcinoma. In July, 1901, there was a recurrence in the scar and axilla, for the relief of which she was operated upon by Mr. H. C. Jeffreys. Six months later, in December, 1901, Mr. Clinton T. Dent removed several lumps from the right axilla. This patient then remained free and well for nearly three years, but in March, 1904, she consulted Mr. L. A. Bidwell at the West London Hospital. There were then found to be one small ulcer at the inner end of the scar and several lumps in the scar and axilla, which were adherent to skin and the underlying tissues; also there was great œdema of the whole of the right arm. Microscopically the ulcer proved to be epitheliomatous. X rays were applied twice a week with an exposure of from five to ten minutes; the ulcer readily healed in a few weeks and the axillary lumps one by one broke down and became simple hæmatomas; these were from time to time tapped and yielded disintegrated blood, the small incisions closing quickly. In June, 1904, treatment had to be stopped for a somewhat extensive dermatitis. It was resumed in August of the same year. From that time onwards she has shown no sign of malignancy but has had intermittent treatment with the idea of softening if possible the lumpy scar in the axilla, thus relieving the œdema of the arm which still persists though much improved. Even at the present time occasionally a lump will break down and the contents on aspiration consist as before but no trace of carcinoma cells can be found. The patient has gained 18 pounds in the past 16 months. She has practically no pain now and is in a good state of general health.

CASE 2.—The patient was a man, aged 68 years. In October, 1904, he attended the West London Hospital for a little lump of a dark purple colour situated on the right temple; it had been noticed four months before. He complained of its being very sore and stated that it bled very readily to the touch. He was referred to the x ray department and a minute portion being detached it proved to be a typical epithelioma. He had 11 applications in all of about five minutes each. The lump came away as a dry scab. There has been no recurrence during the past 11 months.

CASE 3.—The patient was a man, aged 59 years. In May, 1900, I removed by a V-shaped incision an epithelioma of the size of a large cherry from the lower lip. The Clinical Research Association reported that the part examined was "a squamous-celled carcinoma with surrounding tissues normal." In October, 1900, it had recurred in the outer edge of the scar as a dark purple nodule of the size of a pea. The x rays were applied through a lead screen for six sittings of five minutes each. There has been no return during the past five years.

CASE 4.—The patient was a man, aged 52 years. In March, 1903, Mr. H. T. Butlin removed an epithelioma from the inner side of the right cheek just in front of the entrance to Wharton's duct. Five months after it had recurred as a hard edged ulcer with raised rims, bleeding readily to the touch, even if the tongue was pressed unduly hard against it. Microscopically it proved to be a squamous-celled epithelioma. In July, 1903, the patient was treated to nine applications of the rays of about ten minutes each sitting. The ulcer quickly healed and at the conclusion all that remained was a hard puckered scar. The rays were applied through a glass Fergusson's speculum held in the mouth and the face was protected by a lead screen. It is now more than two years since the last treatment and there has been no recurrence.

CASE 5.—The patient was a man, aged 38 years. In April, 1900, I removed a small tumour from the left parotid region; it had first been noticed in the preceding January. The incision healed by first intention. The Clinical Research Association reported on the growth that it was a "fibro-sarcoma with spindle cells." Four months after, in August, it had recurred in the shape of a lump of the size of a walnut, fairly hard, and adherent to the skin and underlying tissues. The patient was treated to 13 applications of about five minutes each. The tumour rapidly disappeared. During the treatment a slight dermatitis was produced to the degree of dry exfoliation. There has been no recurrence during the past five years.

CASE 6.—The patient was a man, aged 34 years. This is a very similar case to the foregoing. In October, 1904, I removed a small parotid tumour of the size of a large cherry which proved microscopically to be a mixed-celled sarcoma. Recurrence had taken place by March, 1905, to about the same size. During the treatment it became of stony hardness, then quite loose and shrunken to one-third its original size. It is still discharging externally a thin serous fluid at intervals. The patient has had in all 19 doses of five minutes each.

CASE 7.—The patient was a woman, aged 39 years. She attended at the Westminster Hospital in September, 1902, where Mr. E. P. Paton removed the left breast for a scirrhous carcinoma and, according to her statement, "it never healed properly." In June, 1903, she consulted Mr. Bidwell at the West London Hospital who diagnosed the affection as recurrent carcinoma in the scar with infected axillary glands. There were four lumps in the scar, three of which were ulcerated in their middle; each was of the size of a penny and they were slightly raised; they were adherent to the deeper tissues. The lumps in the axilla were not very hard but each was of the size of a walnut and there was also a supraclavicular gland of the same size. The treatment by the x rays was commenced on June 15th, 1903, and consisted of ten minutes' application given twice a week at a distance of three inches from the skin which was completely bared. After the ninth application

a severe dermatitis was produced. The size of the area that ultimately peeled was 8½ inches by 7 inches; it was practically the whole of the breast, the axilla, and the upper third of the inner side of the arm. This gradually subsided, when it was found that the lumps had all disappeared. On Sept. 14th I resumed treatment on the lumps in the axilla, carefully screening the healed parts; these quickly vanished. The patient had in all 16 applications during a period of four months. During the past two years there has been no sign of a recurrence and the scar is very loose, and in the position of the ulcers the skin is peculiarly transparent owing to its extreme thinness; the underlying parts can be easily seen through them. At the present time there are no glands to be felt.

CASE 8.—The patient was a man, aged 59 years (sent by Dr. H. Roxburgh Fuller). He was suffering from a very extensive growth of the rectum and anus which he had had for some 18 months and which had been diagnosed as a carcinoma by Sir Frederick Treves and Mr. Anthony A. Bowlby. He was advised not to undergo an operation owing to the extensiveness of the growth. The examining finger could not reach beyond the hard masses in the rectum. Outside there was a horseshoe-shaped mass at the anal site; this was 3½ inches across by 4 inches long and projecting 1½ inches above the surrounding skin. A very slight trace of anus could be detected at the lower part. The growth, though fairly hard, bled very readily to the touch. Microscopically it was a carcinoma with much fibroid tissue. The patient suffered from incontinence of fæces and had done so for over a year; he also had much pain and discomfort. He was compelled to eat his meals in a standing position. The treatment which I administered was from a high-frequency electrode giving off x rays for an area of the size of a five-shilling piece which showed the terminal phalanges of the fingers well with the fluorescent screen. The applications were each of 20 minutes' duration from three to five times weekly and extended from June to November, 1903. A peculiar feature was the almost immediate production of an enormous flow of clear mucous discharge which only ceased towards the end of the treatment, when the original tumour consisted of a hard, fibrous, horseshoe-shaped lump but only of the thickness of one's little finger. The incontinence had ceased and there was no pain to the examining finger which could easily get above the growth, the remains of which seemed to be limited to the sphincter alone and consisted of very hard tissue. The natural opening was considerably contracted. Colotomy was subsequently performed, the growth remaining arrested. There has been no recurrence.

CASE 9.—The patient was a single woman, aged 42 years (sent by Dr. H. V. Griffiths). In June, 1899, the late Mr. Christopher Heath removed the left breast and glands for scirrhous carcinoma. There was recurrence in the scar and in the axilla 11 months after. A second operation was performed in March, 1900, and eight months later an ulcerated lump formed in the axilla, discharging thin serous fluid tinged with blood. The Clinical Research Association reported on a minute portion, "Consists of scirrhous carcinoma cells." X ray treatment was commenced in November, 1900, with daily exposures of ten minutes each sitting, there being no shielding of the surrounding parts. After 16 applications a mild dermatitis was set up. There was a cessation of treatment for five weeks, during which time the patient went to the seaside. On her return she was treated for a further six weeks by two applications a week of five minutes each sitting. In all 28 exposures were given and there has been no recurrence during the past four and a half years and the patient is still in excellent health.

CASE 10.—The patient was a man, aged 60 years (sent by Mr. P. Warner). In May, 1905, he was examined in consultation by Mr. Charters J. Symonds, Mr. Herbert Tilley, and his own medical attendant. He was also seen by Dr. L. Hemington Pegler and the unanimous diagnosis was epithelioma of the throat. There was a typical malignant ulcer of the size of a penny on the left back part of the root of the tongue, invading the base of the left tonsil and left lower part of the pharynx. In the submaxillary region a fairly large lump could be felt and seen from the outside; it was adherent to the deeper structures and of the size of a large walnut. Several smaller lumps could be easily felt in the deeper parts. A minute particle proved the growth to be a squamous-celled epithelioma. The whole of the parts were indurated and matted together. The patient complained of constant dribbling and great pain with difficulty in swallowing even fluids. On May 31st treatment was commenced and consisted of exposures of from ten to 15 minutes twice a week. The rays were passed through a glass Fergusson's speculum held in the patient's mouth. The ulcer quickly began to put on a healthy appearance and on August 9th, on coughing, the expectoration was saved and examined by Mr. G. L. Eastes who reported as follows: "These cells I certainly think are derived from a neoplasm and though the majority of them do not present characters which I consider diagnostic of malignancy, yet there are a few which have a very suspicious appearance." After three months, with 24 applications in all, the ulcer had contracted down to the size of a threepenny piece; the enlarged submaxillary gland was extremely small and soft, the other glands being of the size of peas, all freely movable and without the slightest sensation even on hard pressure. The patient is much improved in every respect. The pain is slight and is due to the mechanical pressure of the scar; swallowing is easy, even of semi-solids. He is still under mild x ray treatment but all signs of malignancy have disappeared.

Bedford-square, W.C.

A CASE OF CHRONIC HYPERPLASTIC TUBERCULOSIS OF THE ASCENDING COLON, WITH GENERAL LYMPHATIC INFECTION; DEATH FROM ACCIDENT.

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AND
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THE following case of what appears to be a primary tuberculous infection of the intestinal tube is of sufficient interest to warrant its publication in full.

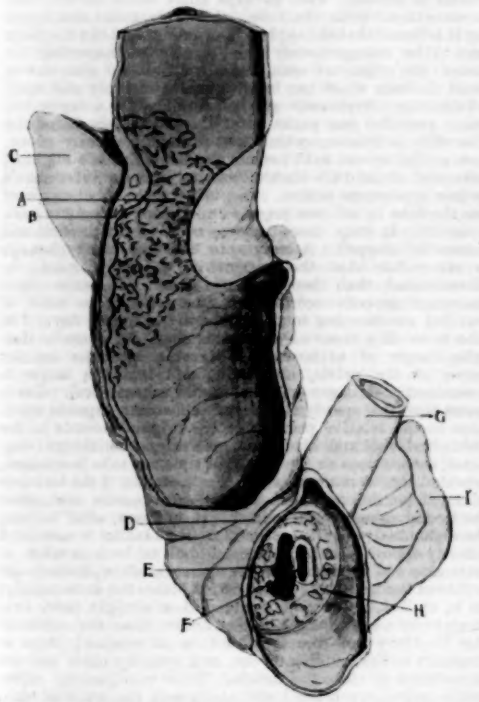
The patient, an unmarried man, aged 21 years, was admitted to the Sheffield Royal Hospital under the care of one of us (A. H.) on April 23rd, 1903, complaining of lumps in the sides of the neck. He had had inflammation of the lungs and bronchitis at 11 years of age and dropsy at 14 years of age. There was no family history of tuberculosis. He first noticed lumps at the bottom of the left side of the neck six or seven months previously which gradually extended upwards. During the last month they had become much larger. About six months previously he noticed lumps in the right side of the neck. His appetite was good. His bowels acted regularly. Micturition was frequent and he had to get up in the night. He slept badly. The patient's present condition was as follows. He was well nourished but somewhat sallow. There were enlarged glands on both sides of the neck, chiefly on the left, where they extended down behind the clavicle. They were very tense and full. He had some cough. His respirations were 18. Some whitish phlegm was brought up. A few rhonchi were heard over the right scapula behind. The heart was normal. The pulse was 80. The abdomen was not distended. The spleen was not enlarged. Large rounded swellings were felt in the abdomen chiefly below the umbilicus and to the left side. The axillary glands were enlarged on both sides; the inguinal glands were not enlarged. Examination of the blood at various times gave the following results:—April 29th: Hæmoglobin, 70 per cent.; red corpuscles, 3,200,000 per cubic millimetre; leucocytes, 10,000 per cubic millimetre. May 19th: Hæmoglobin, 80 per cent.; red corpuscles, 4,800,000; leucocytes, 9300. June 10th: Hæmoglobin, 90 per cent.; red corpuscles, 3,300,000; leucocytes, 9380. The urine was of specific gravity 1022; it gave an acid reaction and contained no albumin or sugar. The temperature was raised in the evening, irregularly, up to about 99° F., occasionally to 100° or 100·2°; it was usually subnormal in the morning.

The further progress of the case was as follows. The glandular condition remained stationary, except for some

increase in the abdominal swellings. Arsenic was given up to 15-minim doses but had to be stopped on account of diarrhœa. There was no constipation at any time. On June 5th it was noted that the patient had some pain to the right of the umbilicus. His weight on admission was nine stones and when discharged three months later he had gained eight and a half pounds. After this the man was lost sight of until he was taken to the hospital on Jan. 28th, 1905, having received a severe crush at his work. He was admitted to the surgical wards, under the care of Mr. H. Lockwood, with symptoms of rupture of the intestine. Laparotomy was performed by one of us (G. S. S.) on Jan. 29th, at 11 A.M. The peritoneal cavity was full of fæcal matter. An almost complete transverse rupture was found about the middle of the small intestine. The kidneys were normal; there was some blood about the pelvis of the right kidney. The ureters and bladder were normal, as were also the generative organs and the joints. The patient died at 7 P.M. the same day.

Necropsy.—A post-mortem examination was held on Jan. 31st, 48 hours after death. There was a small wound on the left leg. Port-mortem rigidity was present. Examination of the head was not allowed. Large masses of caseating lymph glands were found on both sides of the neck, some consisting of mere bags of pus. The larynx and trachea were normal. The lungs were much congested. There was no evidence of present or past tubercle in either lung. Strong pleuritic adhesions were found on the left side; less on the right. There was blood in both pleuræ.

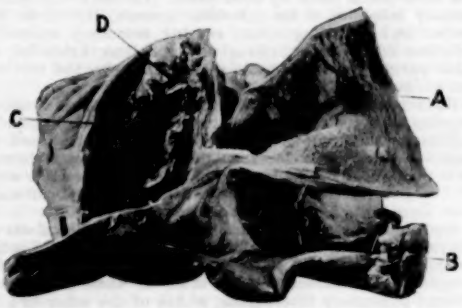
FIG. 1.



General view of the cæcum and ascending colon, seen from the front. A, Upper stricture, showing polypoid appearance of mucosa. B, Cut edge of the colon. C, Tuberculous mass arising from the right wall of the colon. D, Puckering of the outer surface of the cæcum, due to stricture. E, Aperture of the lower stricture. F, Ileo-colic valve. G, Ileum. H, Diaphragm-like shelf of the lower stricture. I, Appendix.

No ribs were fractured. The heart showed some hypertrophy of the left ventricle and slight thickening of the mitral cusps. The aorta was normal. As regards the abdomen, there was fracture of the pelvis through the symphysis pubis; the pelvic cellular tissue was infiltrated with blood. Blood-stained fluid was found in the peritoneum. The stomach was normal. The intestines were matted together by recent lymph of a greenish-yellow colour. The neighbourhood of the resected gut looked normal. Murphy's button was found *in situ* with plastic lymph about it. The liver, spleen, pancreas, and suprarenals were normal. The naked-eye appearances of the intestines were as follows. Externally they showed nothing abnormal except in the region of the cæcum and ascending colon. On the right side of the latter, about five inches from the caput cæci, there was a smooth, somewhat wedge-shaped, solid projecting mass, measuring two inches by one inch (Fig 1, C). It was covered with peritoneum from the surface of the colon and ended above and to the right in a free rounded edge. On opening the colon an elongated narrow stricture of the channel existed at the level of the growth (Fig. 1, A and B) which extended also to the front and inner wall. The mucous surface of the stricture showed a scarred and polypoid condition quite distinct from the neighbouring normal mucosa. The stricture was about one and a half inches long and admitted the little finger only. About three inches lower down, opposite the ileo-cæcal valve, there was a puckering of the intestinal coats in the form of a ring (Fig. 2, D), similar to what is seen in an early malignant

FIG. 2.



Under surface of the stricture at the ileo-colic valve. (The lower end of the cæcum has been opened and cut away.) A, Lower end of the ileum laid open. B, Appendix. C, Aperture of tuberculous stricture. D, Under surface of the stricture, showing pitted and polypoid appearance, due to old ulcers. (From photograph by Dr. W. Harwood Nutt, house physician, Sheffield Royal Hospital.)

stricture. Underlying this could be felt a thickened ring of tissue. On opening the cæcum a complete annular stricture was seen at this point, forming a diaphragm-like, circular shelf in the lumen (Fig. 1, H, and Fig. 2, D). Its aperture was oval and measured three-quarters by half an inch in diameter (Fig. 1, E, and Fig. 2, C). Its mucosa was pitted all over with small healed ulcers between which the mucosa was polypous. The ileum (Fig. 1, G, and Fig. 2, A) opened into the inner side of this shelf; its edges were thickened and its lumen was much narrowed (Fig. 1, F). Below and above this stricture the cæcum appeared to be unaffected. The appendix (Fig. 1, I, and Fig. 2, B) was normal. Microscopically the scarred mucosa showed here and there typical tubercles containing giant cells and much scar tissue. No tubercle bacilli were found in the sections examined. In the neighbouring mesentery were large numbers of caseous and calcareous glands, varying in size from that of a pea to that of a Tangerine orange.

Points of interest.—1. The difficulty of diagnosis between tuberculosis and lymphadenoma in an adult. In this case there was no splenic enlargement and only a slight rise in temperature. On the other hand, the very considerable mass of abdominal glands of such large individual size strongly suggested lymphadenoma. The blood count was not characteristic of either. There was no suspicion clinically of any softening of the glands nor was there any history of any having done so and they felt exactly like the firm hard glands of lymphadenoma. In a doubtful case it is advisable to excise a gland and to see and also to try the tuberculin test.

2. The absence of any symptoms of obstruction in spite of the two strictures. When in hospital the bowels acted regularly as a rule. On one occasion the patient had diarrhœa

for two or three days but this was probably due to the large doses of arsenic and passed off directly the drug was omitted. This is in striking contrast with most cases recorded, in which the classical symptoms of stricture of the large intestine have led to the diagnosis of cancer and operative measures. At the necropsy there was no evidence of old obstruction.

3. Everything points to this being a primary infection of the mucosa of the cæcum. There were no traces of present or past pulmonary infection and no scarring. It is true that there were pleural adhesions but these were not apical but, rather, generally diffused; possibly these occurred when the patient had inflammation of the lungs at 11 years of age.

Judging by primary tuberculous lesions elsewhere the amount of hyperplasia points to the lesion having been of no recent date. This is also supported by the calcareous and caseous condition of the mesenteric glands. The swelling of the glands of the neck only began to be noticeable six months before the patient's first admission to hospital—that is, two and a half years before his death. The limitation of ulceration to the cæcum and lower part of the ascending colon with the great hyperplasia causing strictures is in marked contrast with the usually active and extending ulcers due to sputum infection. The lungs showed no scar of any past tuberculous lesion and there was no evidence of bronchial glandular affection, so that general infection could not have taken place by that route. Probably this was a primary infection of the intestinal mucosa, limited to the cæcum and ascending colon, causing secondary extensive infection of the mesenteric glands and later extending to other parts of the lymphatic system—namely, the cervical and axillary glands.

The actual healing of so extensive an area in the intestine, together with the quiescent state of the mesenteric glands, indicates either a low vitality of the particular breed of organism or a high resistance of the individual host's tissues. That the patient should have been able to continue his work with large softened glands in the neck which had certainly been there for nearly three years confirms this.

Numerous cases of so-called hyperplastic tuberculosis of the cæcum have been recorded from time to time. König[1] records five cases in which operation was performed for symptoms of obstruction. In three of these there was evident pulmonary tuberculosis, whilst of the other two in one there were no signs of disease elsewhere during life and in the other, who died, several ulcers were found in the cæcum, the mesenteric glands were caseous, the bronchial glands were calcified, and the spleen was amyloid. Crowder[2] gives an account of a case, with a valuable *résumé* of the literature up to that date. He collected 77 cases, 36 males and 41 females. He refers to the difficulty of diagnosis from malignant disease of the cæcum. The same writer[3] records a similar case commencing in the vermiform appendix.

Sheffield.

REMARKS ON THE AFTER-TREATMENT OF CASES OF SUPRAPUBIC CYSTOTOMY, WITH A DESCRIPTION OF A NEW DRESSING FOR THE PURPOSE.

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THE after-treatment of cases of suprapubic cystotomy is not at present entirely satisfactory. The object of this paper is to bring forward what is believed to be a new dressing for a patient with a sinus leading from the suprapubic region to the interior of the urinary bladder. As a house surgeon to St. Bartholomew's Hospital I have had several opportunities of observing the course of, and the effects of treatment on, such fistulæ until the recovery of the patient and it will be convenient to recount briefly some of these observations before proceeding to the main object in view. This will also serve to point out the requirements expected of such a dressing and to show how these are fulfilled by the device to be described.

The common conditions for which the urinary bladder is opened above the pubes are (1) prostatic hypertrophy with obstruction, (2) vesical calculus, and (3) vesical papilloma and malignant disease. Whatever the condition for which the operation is performed the subsequent method of procedure is nearly always as follows. The edges of the wound in the bladder are sutured above, below, and laterally to the anterior abdominal wall with catgut. These sutures do not pass through the skin. The skin incision is closed with the exception of a hole through which a drainage-tube is inserted to the bladder. It is best if this hole fits closely round the tube. The latter is either single, with no lateral holes in it save in the part inside the bladder, or it is a two-way tube. For the present purpose the details of the tube need not be described. It is usually fixed with a stitch which passes through the substance of the rubber only and does not enter the lumen of the tube. The wound is dressed, sometimes a catheter is tied in, and the patient is returned to bed. So far all is good. The wound is dressed as occasion requires and the tube and bladder are washed out. As soon as the main collection of blood, blood clot and débris ceases to appear in the tube and on the dressings—very often before this stage—the tube is geared by a glass union to a second long rubber tube which leads to a receptacle beneath the bed, the end of the tube being beneath the surface of a measured quantity of lotion into which the urine drains away by syphonage, aided, perhaps, by a Sprengel pump or Cathcart apparatus. It is usually unnecessary to wash out the bladder at this stage unless cystitis is present, with perhaps thick urine loaded with mucus which blocks the tube. As a rule about the fourth day it is found that the syphon does not act and the dressings have to be changed every two hours. On inspecting the wound the edges are seen to be everted and granulating round the tube which can be withdrawn smoothly and without sticking. Syphonage can be continued for a day or two longer provided one packs carefully and closely round the tube with a dressing which will prevent the entry of air, such as lint spread with boracic ointment, but the slightest leakage of air into the bladder, and so into the tube, annuls further syphonage action. The urine then only flows over into the tube by its own pressure and more commonly leaks around it. In some cases leakage occurs from the first and cannot be stopped. Attempts to continue the syphonage so often fail that the patient is generally more inconvenienced than benefited by them. In some cases the exact opposite occurs, the tube refusing to work at first but commencing to do so about the fourth day. The tube is usually removed about this time, for there is then little danger of extravasation of urine into the cellular tissue of the pelvis, and it is said that the longer it is retained the longer will the wound take to heal. But it seems that the speedy closure of the wound depends much more on the relative position of the original wounds in the abdominal wall and bladder respectively, other things being equal, than it does on the length of time the tube is retained, provided this be not excessive. For instance, if the incisions in the abdominal wall and bladder are opposite each other the wound takes longer to heal. If, however, after incising the abdominal wall the incision into the bladder is made, not directly opposite the first incision, but an inch or more, as retraction and the nature of the operation allow, towards the orifice of the urethra the final fistula closes the more rapidly. It is, in fact, when first established a straight hole, held straight by a tube along a radius drawn from the centre of the bladder; but directly the tube is removed there is probably a slight sliding of one end over the other and the shear helps to close the fistula. Those who perform suprapubic cystotomy often could easily test the truth of this, which is at present based on such a small number of cases that it is little more than a conjecture. However this may be, the tube is soon removed for good and so are the stitches from the skin. They usually become loose after the sixth day. The patient is now in the following condition. He has a nearly healed skin wound and, in some part of it, a complete urinary fistula. Sometimes he has a catheter permanently in the bladder and urethra, but if not one is generally passed from time to time to insure that the natural opening is patent, especially after prostatectomy. If he has no catheter tied in all his urine passes by the fistula. His dressings and bandages are continually soaked and require to be changed every three hours at least, the draw

[1] König: Zeitschrift für Chirurgie, 1892, Band xxxiv., p. 65, Die Stricturirende Tuberculose des Darmes und ihre Behandlung.
[2] T. B. Crowder: American Journal of the Medical Sciences, 1900, p. 668, the Pathology of Chronic Hyperplastic Tuberculosis of the Cæcum.
[3] Ibid., 1902, p. 236.

sheet being changed at the same time. The urine flows round beneath the dressings to his back and down the scrotum; his skin is always wet from about the level of the third lumbar vertebra to a point four inches down the thigh. He has to be continually awakened for the dressings to be changed, though usually the wetness itself wakes him. In many cases it is necessary to keep his skin well covered with ointment lest the soaking help to produce sores, and his position in bed must be frequently altered to relieve any long-continued pressure on any bony prominence. Even if he has no cystitis his bed tends to smell offensively, but with the care that is bestowed on him by the sister and nurses in a good hospital or home this is reduced to a minimum. His dressings at hospital price cost about £1 5s. per week; only an approximate estimate is possible. If the patient has a catheter tied in his soaking condition is mitigated somewhat but it is not completely relieved; the external opening of the fistula is closely strapped so that it may heal by third intention but very often the strapping becomes loosened by urine and occasionally leakage occurs outside the catheter. The proceeding, in fact, seldom hastens recovery as far as can be judged. Although the patient has to put up with this discomfort the results of operations on the urinary bladder performed with proper attention to detail are, as a rule, so eminently satisfactory, afford such immense relief, and tend to such great prolongation of life that it is well worth his while to endure it for a time. There is hardly any class of patient that is more grateful to the surgeon. The fact that all will eventually be satisfactory need not lessen the desire to try to ameliorate his uncomfortable state meanwhile. The condition continues for a very variable time, during which the patient, if at all sensitive, is literally in a state of misery and those who have care of him are often overworked. To illustrate the duration: one fistula healed in 11 days. In this patient the valvular method of opening the bladder described above had been used. Several healed about the seventeenth day, more between the seventeenth and the thirty-fifth day, and some took six weeks or more. One patient had his fistula for four months with offensive cystitis. He was an alien and could not be made to understand and remember what was required of him or to assist his own cure in any way, such as by allowing a catheter to remain fixed in position. This patient died. In the more fortunate cases, and they are the rule, the patient at or about the time the fistula closes passes at first half an ounce of urine per urethram; then, a few hours later, two ounces with a strain and the fistula opens again perhaps. 12 or 24 hours later he passes six ounces and from that time onwards all his urine comes through the urethra. If he gets up under four or five days from the first closing of the fistula the opening often becomes patent and has to close again, which it does quickly. The patient should therefore be advised to be content with his bed or the sofa for a week longer, whereby he will not really lose any time in getting well.

It is obvious from the foregoing remarks that there is very great need of some kind of dressing for application to the patient during the period which elapses between the removal of the skin sutures and tube and the closing of the urinary fistula. This time is at least one week; it is generally about three weeks and often longer still. The requirements are: (1) a dressing which shall be applied on the surface of the skin and which shall not enter the fistula at all—which shall not, therefore, tend to prevent it from closing or cause harm in any way; (2) a dressing which shall collect faithfully all the urine flowing by the fistula and allow it to drain away to a receptacle without wetting the patient's skin; (3) a dressing which shall in no way inconvenience the patient either by its bulk or by causing irritation of the skin or by its attachment to parts remote from the wound as might very reasonably be necessary; (4) a dressing which shall only need occasional inspection and attention, just so much as may also be necessary for proper attention to the edges of the fistula, when, for instance, the granulations become exuberant; (5) a dressing which shall be transparent and so allow the wound to be easily seen; and last of all (6) a dressing which shall be easy of application, simple, unlikely to go wrong, and which shall also be cheap, aseptic, and easily cleaned and sterilised. Such a dressing has been arrived at and is described later; but it will be convenient to state the steps which have led to its being devised, for these may be of some assistance to others working at the subject, by showing the train of thought pursued, and may also help to contribute to the solution of the problem in a simpler and more efficient manner than hitherto.

In the first place, then, it is easy to conceive the common toy sucker of the child being applied for the purpose. If we took a flat rubber sucker with a tube inserted at its centre, applied it to the skin around the opening and maintained the conditions of suction we should solve our problem. But there is an insuperable objection which is detailed later. However, it is possible that the sucker principle can be applied while the objection is overcome. This was done in the following manner. An oval groove or trough was constructed having rubber walls, the edges of the trough being rounded and slightly collapsible, just like the face-piece of an ether inhaler only double, one small face-piece inside and concentric with a larger one. From the oval groove an airtight tube was led off and the space inside the inner edge of the trough was converted into a closed rubber tent from which led a long tube to conduct away the urine. The device was applied to a well-greased area of skin around the opening of the fistula and pressed against it. At the same time suction was kept up in the groove through the tube provided. Let it be understood that the trough or groove was subsidiary only, as a means of making the dressing adhere to the skin. This it did, but it caused discomfort and was not easy to manage. It is very difficult to insure that the edges bounding the groove in the apparatus are both in firm contact with the skin, for the inner one cannot be seen when the dressing is in place. Air readily leaks in and the suction has to be maintained with a Sprengel pump or Cathcart apparatus. The appliance also has to be aided by an attached truss and spring and even if lightly made would be relatively a clumsy, heavy, complicated and expensive device for the purpose and would probably leak. A single face-piece kept on by a truss and spring was not actually tried. It would probably slip about and leak, and unless made rather large and bulky would be unsatisfactory. If the area inside the tent were large a large surface of skin would be unnecessarily exposed to the urine. Moreover, the pelvis and anterior abdominal wall of one patient differ from those of another in size and shape, and by the time the dressing was adjusted finally it might not be needed.

In the second place, is it not possible to apply a circular plaster over the skin and from the centre of the plaster opposite the opening of the fistula, to lead off the drainage-tube? This was tried. The first step was to obtain a good rubber-faced plaster. Leukoplast was selected and from the centre of a disc of it a tube was led off and the plaster was applied. It answered for half an hour but as soon as the plaster became warm with the patient's natural heat the dressing was soaked through and the layer of plaster separated. The joint of the tube also leaked. Mr. E. B. Aylward suggested the application of a thick layer of collodion over the plaster to make it waterproof. It answered for three hours and then buckled and leaked. It would not adapt itself to the wrinkles of the patient's skin. Next a rubber tracheotomy tube was tried with the flange suitably shaped up and buried between two layers of leukoplast with a thin layer of dental sheet rubber between them to make the whole waterproof. It answered for six hours but needed the continual application of fresh strips of plaster over it to prevent it from coming off. It was therefore evident that the direction of the inquiry was correct and if the technical difficulties could be overcome success would be assured. These were to make the dressing itself watertight and to stick it on by some non-irritating aseptic substance impervious to water. If the dressing could be made entirely of rubber and if it could be actually stuck on by rubber most of the requirements would have been attained. To make the dressing in one piece would mean making a mould, possibly several moulds before the correct one was arrived at, and this would involve considerable time and expense. Therefore the dressing was made of a tracheotomy tube and sheet rubber stuck together with rubber solution. For 48 hours I wore a piece of sheet rubber fastened on my arm with rubber solution in order to see whether it irritated the skin and whether it adhered satisfactorily. It answered perfectly but became a little loose when I caused myself to sweat profusely. It could be peeled off readily and left no trace of its application. Cultures showed that the rubber solution was aseptic; indeed, it is hardly possible to imagine that any micro-organism would grow in such a medium.

The device was applied to the patient as follows. The skin

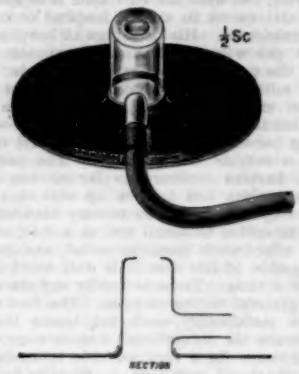
around the orifice of the fistula was shaved, it was swabbed with ether to remove all grease and then kept perfectly dry by soaking the urine up with wool as it appeared on the surface. The dressing having been boiled was thoroughly dried and coated on its under surface with rubber solution. The patient's skin was also covered with an even thin layer rubbed on well. When the two surfaces had become nearly dry and sufficiently "tacky" the central swab was removed and the dressing was quickly applied. The process was like that employed in mending a puncture in the inner tube of a bicycle tyre, only the patient's skin was not sandpapered. The tube was connected with a receptable beneath the bed. This dressing remained in place for four days and was perfectly efficient in all respects to outward appearances. The patient remained dry externally, the dressing moulded itself to his skin as it wrinkled, he sat up, slept his seven hours at a stretch, and altogether was greatly pleased. The glass union showed that the syphon was full. On the fifth day the dressing leaked and had to be removed, though it would have been removed at this stage in any case to see how the wound was progressing. Then a curious condition was found. For three days before small sloughs had appeared in the glass pail under the bed, and it was not clear why they should have been there for none had previously been present on the dressings. In the centre of the orifice of the fistula, and having apparently entered the tube, was a conical slough. The base of the slough was a quarter of an inch in diameter and immediately surrounded by a thin blue shelving edge of epithelium. The apex was three-eighths of an inch high. The slough had blocked the tube and performed an experiment which we verified later by clipping the drainage-tube itself. For when the slough had blocked the tube, even though, as we knew in this case, there was no urethral obstruction, the patient had strained and the thin edge of the urinary wedge had inserted itself between the skin and the dressing and had quickly separated a passage.

It is obvious from this trial that an application of sheet rubber stuck on with rubber solution is not in itself alone sufficient for use in sealing up a urinary fistula in all cases should one wish to do so. However, if it is slightly stretched before it is put on it is the best application known at present, and it is likely to be successful in many cases, especially when it is possible to combine it with continuous drainage of the bladder through a catheter, and perhaps also with a truss to make pressure on the layer of rubber.

In this case it was also evident that the syphonage action was far too powerful. Although it was a fall of two feet of water only it had been sufficient to suck a cone of tissue into the wound. This cone looked like granulation tissue and part of it was dead, but it might have been partly mucous membrane. The interior of the bladder was one inch away from the skin when measured by a bent probe. Unfortunately the cone was not submitted to a microscopical examination but the point could easily be settled by repeating the trial. In this respect then the dressing was not only not advantageous but was an actual disadvantage, for skin epithelium will not grow quickly over little mountains such as this cone was. Moreover, the fistula was still quite patent at the base of the cone. This was the objection discovered to the direct sucker principle and referred to before. The remedy was obvious—namely to reduce the length of the long arm of the syphon. This was done down to only one inch of fall, yet the conical slough appeared in 16 hours. The syphonage was then entirely abolished by making a hole in the upper part of the tube near the fistula, thereby allowing the urine to flow over by its own pressure alone. When this dressing was removed two days later no slough was present.

After these preliminary experiments the six requirements mentioned above were reconsidered and ultimately the present apparatus was arrived at. Several forms were tried and the description applies to the one which proved the most satisfactory. The question is a collective one and when one part of the apparatus is altered it is at the expense of the whole. Therefore it is proposed to consider the following device as final until time and experience suggest a permanent modification of it in any particular.

The dressing consists of two parts, one being made of clear glass and the other of sheet rubber. The glass portion is a lightly blown hollow cylinder five-eights of an inch in diameter and modified in that the top is partially closed and the bottom turned outwards as a flange. From the cylinder juts out a tube at right angles to its axis. The accompanying drawing and section offer sufficient explanation. The sheet rubber portion is a circular disc of the best, most flexible and elastic, untearable, black sheet rubber, three inches in diameter and one thirty-second of an inch thick. It has a central circular hole five-sixteenths of an inch in diameter and can therefore be easily sprung over the glass flange and arranged to lie in continuity with the concave portion of it, as shown in the section. This is important for the proper application and stability of the apparatus. The joint so made is absolutely watertight. The two pieces when adjusted together and to a patient lying on his back



are situated so that the cylinder is vertical and the rubber sheet horizontal. The total weight is three drachms. A larger size is provided for use in the early stage if necessary. The dimensions are a compromise of several, each of which has its own advantages and disadvantages.

The rubber solution employed is made by dissolving pure rubber in naphtha. It is put up in tins and not in tubes. A wide tin is obviously far better for the purpose than a tube. It is highly inflammable and the solvent quickly evaporates, both good reasons for keeping it securely sealed up.

The *rationale* of the dressing is as follows. Here is a transparent glass vessel open below. It has a hole at the top through which air can enter freely and through which there is access to the opening of the fistula. It has also a tube through which urine can drain off and which can be connected up to a receptacle. It can be attached to the patient's skin by means of the rubber disc and some rubber solution. It has a margin of safety in the extra and seemingly unnecessary height of the cylinder in case the exit tube gets slightly blocked. Urine often rises in this cylinder above the level of the exit tube, even when the latter is on the side on which the patient is lying. The two parts of the dressing are sterilised separately and the application is made as follows. The skin of the patient is shaved over an area of two inches all round the external opening of the fistula. It is then cleared of grease with a swab soaked in ether. The tin of rubber solution is opened and the surgeon sterilises his hands. He dries them and both parts of the dressing thoroughly with a sterilised towel or with wool, fits the two parts of the dressing together correctly, and adapts the long rubber drainage-tube to the short connecting arm. He causes an assistant, or the patient himself, to keep a small swab of absorbent wool on the orifice of the fistula so that the skin around may be dried and kept perfectly dry until the dressing is applied. This swab should be renewed quickly if it becomes soaked, and it should be small enough to allow the rubber solution to be applied close up to the opening. The surgeon dips his finger in the rubber solution and thoroughly coats the patient's skin with a thin even layer right up to the opening and round it for a distance of two inches, rubbing the solution well in. Care should be taken not to continue the rubbing if the solution becomes "tacky" and begins to peel off. The under surface of the rubber disc is then covered all over with solution but not within one-eighth of an inch of the glass flange or the spring of the rubber is weakened and thereby also the security of the watertight joint. The

rubber flange bends back of its own accord into three most convenient folds like a three-cornered hat. Then the surgeon waits until the two surfaces are nearly dry and quite "tacky" as tested with the finger. That on the skin takes the longer and it is immaterial how dry the surface of the rubber is. To refuse to wait is to court failure. As soon as the correct moment arrives he causes the central swab to be removed for good and then places the glass flange around the opening of the fistula and quickly, before any urine can escape, presses the rubber disc evenly down all round. An intelligent patient at this stage places his finger on the top of the glass of his own accord. In making the adjustment it should be remembered that the drainage-tube should either point towards the pubes with the rubber tube arranged for the side on which he lies, or it should be turned one-eighth of a circle or so to that side. There should be no attempt at rectification when once the application has been made. The excess of solution is rubbed off the skin round the disc with the finger. It comes off readily enough in little pellets while it is still damp with the solvent. The rubber tube is now bent round in a curve and fixed to the skin by a broad band of leuko-plast midway between the anterior superior iliac spine and the orifice of the fistula, and in such a manner that the glass is kept in correct position partly by the elasticity of the drainage-tube itself; that is to say, there should be no "cocking" of the glass in any direction. The top of the glass is lightly covered with a piece of gauze or wool, or the hole is lightly filled, to prevent sepsis. The drainage-tube is threaded through the cradle if one is being used and allowed to hang into the pail. It should be as short as can be contrived. The patient should be instructed to raise up any bed-clothes he may have on the dressing when the nurse has to change them or attend to him, otherwise they will catch in it and it will be swept off. He should also be told not to strain to pass urine. When carefully applied the dressing is usually efficient for at least four days. If urine leaks under the rubber the dressing should be removed by peeling it off from the edge, another rubber substituted, and the whole reapplied. It is generally impossible to readjust it without re-applying it as a whole, though often a strip of plaster applied over the rubber will prevent leakage for one day longer. Ether will dissolve the leuko-plast.

The process has taken much space to describe. It takes five minutes only to demonstrate. A few more remarks are necessary. In the first place the patient should not turn far over on the side away from the rubber drainage-tube. If he does so the level of the urine rises above the level of the upper hole in the dressing and the urine flows over. This can be easily prevented by changing the drainage-tube to the other side of the bed, or by having a second tube led off from the cylinder on the other side of the patient, but, with care, the latter is an unnecessary complication and has been discarded. In the second place when he settles himself for sleep he should just see that there is no kink in the tube and that he is not lying on it, as he is nearly sure to be doing if it is fixed too near the ilium. It is far more convenient for all concerned if he lies on an air-cushion.

The dressing can also be applied, if necessary, to patients with gall-bladder or other fistulæ. Messrs. Down Bros., Limited, who stock the dressing in a case complete with instructions, send also a suitable modification of it for the gall-bladder cases. It is only necessary, however, to employ this modification when the opening of the fistula is on the side, as distinct from the front, of the abdomen. If the patient with a suprapubic fistula is careful he can wear his dressing while up and about, with the drainage-tube geared to a portable urinal. In this case he wears a dressing similar to that for the gall-bladder fistula. If a catheter is being used as a permanent drain it can be geared by a T union into the one drainage-tube. The bladder can be washed out without disturbing the dressing and its presence greatly facilitates the proceeding. Continuous irrigation in a case of cystitis is also easily arranged.

I am greatly indebted to Mr. D'Arcy Power for having allowed me to use the dressing on some of his cases at St. Bartholomew's Hospital. In conclusion, it may be advisable to state that the above device is only the best of several trials. It fulfils in a simple manner all the requirements of the case. It has been proved to be efficient and I hope it will prove of real practical value

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A CASE OF INTRATHORACIC DERMOID CYST.[1]

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THE patient, a woman, aged 26 years, was admitted as an out-patient to University College Hospital on June 5th of this year. She complained of cough, of the expectoration of "pink" phlegm and hairs, and of wasting and shortness of breath. She had suffered from "weakness of the chest" ever since childhood and at the age of 12 years she was treated for six weeks for left-sided pleurisy and hæmoptysis, and the chest was explored with a needle high up on the *left* side. Cough had been present for several years; it had been accompanied by a moderate amount of expectoration, on an average less than half a cupful in 24 hours, and for the last three months had been tinged with blood. Hair had been coughed up or "came into the mouth" on hundreds of occasions during the previous eight years. Wasting, shortness of breath, and night sweats had developed only during the previous six months. There were no special features in the family history. The patient was admitted to the hospital under the care of Dr. J. S. Risien Russell, to whom we are indebted for permission to make use of the clinical records.

On admission the patient was found to be rather thin but she did not look ill. The temperature was 99·4° F., the pulse was 90, and the respiration-rate was 28 to the minute. There was a scar on the nose left after the cauterisation of a wart. There was a suspicion of clubbing of the fingers. The chest was well formed, the right side near the sternum was a little more prominent than the left; slight pulsation was occasionally seen in the second left intercostal space near the sternum. The movements of the chest were good and equal. Vocal fremitus was feeble on both sides of the front of the chest. The percussion note was impaired both above and below the *right* clavicle, becoming almost absolutely dull over the prominent area and very impaired below as far as the fifth rib, as far out as the anterior axillary line to the right and to the midsternum to the left. The breath sounds were weak above and below the *right* clavicle and over the very dull area were quite absent; vesicular breathing was heard over the remainder of the *right* side of the chest. Vocal resonance was well marked above the right clavicle but was much diminished over the dull area. There was slight impairment of the percussion note in the right inter-scapular region below the level of the spine of the scapula but there was no alteration of breath sounds, vocal fremitus, or vocal resonance in this area. No adventitious sounds were heard over any part of the right chest. The left half of the chest was quite normal. The heart was not dislocated, the apex beat being defined in the fourth space just internal to the left nipple line; there were no murmurs. The liver dulness was normal. On June 27th the patient coughed up two hairs in the presence of a nurse; they were short and coarse and resembled axillary hair; the hairs were unaccompanied by sputum. On July 4th similar hairs were coughed up with some sputum. The sputum was examined on two occasions and was found free from tubercle bacilli; it consisted mainly of pus and a few fat globules. Extraction with ether showed absence of fat. During the patient's stay in hospital her temperature never exceeded 99°. A radiographic picture, taken by Mr. E. S. Worrall, radiographer to the hospital, showed opacity over the dull area above described, well defined above, below, and to the outer side, but merging into the sternal opacity on the inner side. There were no signs of teeth, bones, &c. The patient was discharged unrelieved and the symptoms and signs have since continued much the same.

Reports on cases of intrathoracic dermoid cysts are sufficiently rare to justify the publication of an account of this one. The authentic cases number 35; some of them are fully reported clinically and pathologically; others are

[1] The patient was shown at a meeting of the Clinical Society of London on Oct. 27th, 1905.

described merely as pathological specimens; whilst others, again, are described clinically only, the diagnosis being based, as in our case, on such pathognomonic evidence as the coughing up of hair. The age at which these patients first seek treatment varies considerably—e.g., from 20 to 60 years, but in by far the larger number the age is between 20 and 30 years. The cases appear to be equally distributed between the two sexes. Hair has been expectorated in seven out of the 35 cases as early as 15 years in one case, and in the present case and one other at 16 years of age. The cysts most frequently occur in the upper part of the chest and appear to originate in the mediastinum. In some cases they are found to have wandered from this position laterally into the lungs, reaching even the lower lobes or even occupying the greater part of one side of the chest. They may be quite small, being not larger than a pigeon's egg and being discovered only at the post-mortem examination; in a large proportion of the cases the cyst has reached the size of a child's head. In eight of the 35 reported cases the cyst has perforated one or other bronchus and its contents—e.g., hair—have been discharged in the expectoration in all but one of these eight cases; hæmoptysis has been observed several times; one case ruptured into the pericardium and another into the superior vena cava. The cysts show a great tendency to adhere to, and grow into, adjacent structures such as the pericardium, lung, &c. Sometimes they grow out through the upper thoracic aperture and appear as cystic swellings in one or both posterior triangles of the neck. When they have perforated into a bronchus the expectoration usually soon becomes purulent. The temperature may be normal, but in some cases there has been a great rise of temperature and the patients have died from septic pneumonia or from tuberculosis of the lungs. Usually the symptoms and signs persist for several years, in one case even for 44 years, but a few cases have died within a few days of the onset of symptoms. Occasionally death has followed from suffocation, or œdema of the lower extremities and cyanosis have been marked features. A large proportion are undiscovered till death occurs or an operation is performed. The symptomatology differs from that of mediastinal neoplasms as œdema of the neck and distension of veins are exceptional signs. In some cases, however, these signs are found but then the cyst has been associated with various neoplastic growths such as lymphoma, sarcoma, &c. The diagnosis is most difficult unless hair is expectorated. Several cases have been considered to be examples of pleural effusion, of empyema, aneurysm, pericardial effusion, mediastinal abscess, retrosternal goitre, sternal growths, and hydatid cyst. Exploratory puncture is apparently quite safe.

Origin of intrathoracic dermoid cysts.—These cysts may originate in one of two ways. They may be of the nature of teratomata and represent various parts of an included fœtus, as shown by the presence of bone, cartilage, teeth, &c. Sahli's case reported by Ekehorn is said to have shown portions of the alimentary tract. In other cases they appear to be congenital cysts derived from the branchial clefts, being wholly or partly of epiblastic or of hypoblastic origin as shown by the existence of squamous and pavement epithelium and of contents which may be sebaceous or mucoid in character. They have been noticed to be closely connected with the thymus gland, an association which Pfianz considers to be of importance as confirming the "branchiogenous" view of the origin of such cysts. A third group, the origin of which it is difficult to explain, includes cases in which dermoid cysts are combined with various malignant neoplasms such as the teratoma myomatodes described by Virchow. A case of this kind is to be found in the museum of St. Bartholomew's Hospital. Dr. H. Morley Fletcher has described a perioesophageal cyst occurring in a child six years of age. The cyst lay behind the right bronchus close to the œsophagus, from which he concludes it originated, and, like the fœtal œsophagus, it was lined with ciliated epithelium. We have not included this record in the list of 35 cases above referred to as the cyst appears to be quite different both in contents and histological detail from cysts usually described as "dermoid."

Treatment.—If left untreated by surgical operation the prognosis for spontaneous cure is hopeless. In Lobert's case life was prolonged to the age of 60 years after symptoms had existed for 44 years. The average age at death of 17 cases which were not operated upon was a little less than 32 years, the extremes being 20 and 60 years; 11 patients died before reaching 30 years, two between 30 and 40 years of age, one between 40 and 50 years, and three between 50 and 60 years. Operation was first performed by Pöhn and has been carried out in seven of the 35 cases (Pöhn, Kückmann, Godlee, Koerte, Bastianelli, Dardignac, and Pfianz). Incision and drainage, in some cases accompanied by washing out with tincture of iodine or solution of carbolic acid or chloride of zinc, have been followed by great reduction in the size of the tumour and amelioration of symptoms; in one case the tumour, a small one, was entirely enucleated. Resection or trephining of the sternum or incision at the lower margin of the cyst appears to have been a successful means of treating these cases, though little good can be done if the cyst is large, has attached itself widely to adjacent structures, or has large intracystic finger-like growths. In the present state of our knowledge of the beneficial effects of operation it is impossible to dogmatise as to the benefit of operation, though considering the gravity of the prognosis in a large proportion of the cases it seems advisable that some of these cases should be subjected to incision and drainage—e.g., if the cyst is not too large and is situated high up in the chest. Mr. R. J. Godlee tells us that he considers the existence of a communication between the cyst and a bronchus offers some contra-indication to operation, because there is a great chance after incision and drainage of establishing a permanent fistula and discharge through the chest wall.

The results obtained after operation are the following. Pöhn (1871): Drainage did not appear to be satisfactory. Kückmann (1874): After trephining the sternum was able to secure good drainage and ultimately the patient did well. Godlee (1889): Operation placed the patient in a far safer condition but radical cure by drainage was impossible owing to the magnitude of the formation and of the impossibility of inducing the cyst to contract owing in part to the existence of a bronchial fistula. Koerte (1891): The cyst was of the size of the fist and ruptured spontaneously through the anterior chest wall. Koerte enlarged the fistula and by the use of the cautery and solutions of iodine and zinc chloride reduced the size of the cyst. The patient did well until carried off by tuberculosis of the lungs. Bastianelli (1893): This case is the most favourable one on record. A spontaneous fistula developed in the neck. Bastianelli resected the upper sternum and completely removed the cyst which was only of small size. Recovery was complete. Dardignac (1894): The cyst, at first thought to be a hydatid, was a large one, reaching from the third rib to the diaphragm. It was incised, drained, and washed out with tincture of iodine. Ultimately it contracted, producing a small fissure only six centimetres deep. Pfianz (1896): The cyst was placed high up in the chest, partly behind the sternum, its lower limit reaching the second intercostal space. Drainage through an incision above the clavicle failed. Pfianz then trephined the sternum, incised the cyst again below, and washed out with lysol and solutions of carbolic acid and of iodine. In five months all symptoms had abated and the patient was discharged with a small fistula which just admitted a fine probe to a depth of three centimetres.

Bibliography.—Bastianelli: quoted by Pfianz. Dardignac: Revue de Chirurgie, 1894, tome xiv., p. 776. Morley Fletcher: Transactions of the Pathological Society of London, 1897, vol. xlviii., p. 249. Godlee: Transactions of the Royal Medical and Chirurgical Society, 1889, vol. lxii., p. 317. Koerte: Berliner Klinische Wochenschrift, 1891, No. 51, S. 1204. Kückmann: referred to by Pfianz. Lebert: Prager Vierteljahrschrift, 1858, Band lx., S. 47. Pfianz: Zeitschrift für Heilkunde, 1896, Band xvii., S. 473. Pöhn: referred to by Pfianz. Virchow: Virchow's Archiv, 1871, Band liii., S. 444. Further references and a critical study of many reported cases will be found in a contribution by Ekehorn who publishes the details of two patients formerly under the care of Sahli and Fogman: Archiv für Klinische Chirurgie, 1898, Band lvi., S. 107. See also Boinet, Traité de Médecine et de Thérapeutique (Brouardel et Gilbert), 1901, tome viii., p. 317; Hale White, Transactions of the Pathological Society of London, 1890, vol. xli., p. 283; and Ogle, Transactions of the Pathological Society of London, 1897, vol. xlviii., p. 37. Mr. W. G. Spencer informs us of an intrathoracic dermoid cyst which is preserved in the museum of the Westminster Hospital. The 34 other cases referred to above are those described by Gordon, Münz, Büchner, Lebert, Cordes, Cloetta, Salomonson, Callenberg and Waldeyer, Pöhn, Virchow, Kückmann, Marchand, Pinders (two cases), Loewenmeyer, Sangalli, Godlee, Sormanni, Marfan, Koerte, Iores, Bastianelli, Dardignac, Pfianz, Nobiling, Fischer and Waldeyer, Smythe, Ekehorn (two cases), Hale White, Ogle, Harres, Glaeser and Dancel, and Holmes's and Hulke's System of Surgery, 1883, references to which are to be found in the foregoing bibliographic notice.

ROYAL DEVON AND EXETER HOSPITAL.—At the quarterly meeting of the court of governors of this hospital it was stated that the unfavourable balance of the institution was now only £727 against £2453 for the corresponding period of 1904.

ANOTHER CASE OF IMPACTION OF A GALL-STONE IN THE LARGE INTESTINE; LAPAROTOMY; RECOVERY.

BY F. VICTOR MILWARD, M.B., B.C. CANTAB., F.R.C.S. ENG.,

SURGICAL CASUALTY OFFICER TO THE GENERAL HOSPITAL, BIRMINGHAM; SURGEON TO OUT-PATIENTS AT THE CHILDREN'S HOSPITAL, BIRMINGHAM.

THE publication by Mr. S. Maynard Smith in THE LANCET of Oct. 21st, p. 1174, of the late Mr. A. Q. Silcock's case of impaction of a gall-stone in the large intestine induces me to relate a very similar case which has recently occurred in my own practice; it had, indeed, been my intention to send my case for publication before reading the one just alluded to.

The patient, a thin and decrepit woman, 67 years of age, was admitted to the General Hospital, Birmingham, under the care of Mr. H. G. Barling, on July 27th, 1905, suffering from fairly acute symptoms of intestinal obstruction which had existed for four days. During this time she had vomited several times but had not done so for 36 hours before admission. The bowels had not been opened but she had passed a little flatus. Precise particulars of this and of previous illness were very difficult to obtain but I have since ascertained that the patient had been fairly well up to the time of this attack, that she had not suffered from pain or other symptoms attributable to gall-stones, that the bowels had been nearly always regular, and that only on rare occasions had she taken salts. There seems to be no history of any illness, such as one would have expected from the ulceration of a gall-stone into the intestine.

On examination the abdomen, especially on the left side, was seen to be largely distended, so much so indeed that had it not been that the symptoms had existed for some days and were not hyperacute, a diagnosis of volvulus would have been made. As a matter of fact much of this distension was afterwards found to be due to an atonic condition of the muscular parietes and the accumulation of intra-abdominal fat.

I operated in Mr. Barling's absence and under an anæsthetic at once discovered a hard, moveable mass in the left iliac fossa, its previous recognition having been obscured by the distension and rigidity. The case appeared now to be plainly one of carcinoma of the sigmoid flexure and suitable either for colostomy or short-circuiting. An incision was made as for Littré's operation and upon pulling up the sigmoid flexure the supposed carcinoma resolved itself into a normal portion of the large intestine which was tightly gripping a hard body in its lumen. The appearance is very well portrayed by the illustration in Mr. Maynard Smith's article. As it did not appear feasible to move the foreign body or to break it up *in situ* I decided to remove it by an incision through the gut wall. By carrying the knife along the longitudinal band opposite to the mesenteric border and cutting on to the enclosed body the calculus was exposed and turned out. Owing to the friability of the tissues it was found somewhat difficult to repair the aperture. This was finally accomplished, after Lembert's sutures had failed to hold, by a single row of stitches through all the coats of the intestine and the utilisation of such appendices epiploicæ as could be brought to cover the area. The abdominal wound was now completely closed, without the employment of a drain. For some days afterwards the patient was in a very precarious condition, suffering much from bronchitis, for which she had to be propped up in bed, and also from severe mental and physical depression. The bowels gave some difficulty during the first few days and to obtain an evacuation I employed glycerine enemata with small doses of salts and calomel rather than large injections per anum, which would possibly have wrought damage to the intestinal wound. Notwithstanding the constant cough, the abdominal wound gave very little trouble. About the end of the first week the patient picked up rapidly, put on flesh, and became much brighter and happier. She was finally discharged in comparatively good health on the twenty-seventh day after the operation. At the present time, three months later, she lies in the workhouse infirmary in a senile "mithering" condition with her thoughts concentrated on a painful ulcer of her leg. She has quite forgotten her past abdominal troubles.

Particulars of the calculus are as follows. Its weight is 465 grains. It is ovoid in shape, having the usual contour of the single large stones sometimes met with in the gall-bladder. It possesses no facets. By measurement the length is 1¾ inches, the breadth 1¼ inches, and the circumference 3¼ inches. It is composed of concentric laminæ of dark brown and greyish white material, the external hue being a rich reddish brown. Dr. J. H. Rhodes of the University of Birmingham, who has kindly made an analysis, tells me that it is composed of an inorganic basis, chiefly made up of magnesium carbonate—roughly from 25 to 30 per cent. of the whole. There is plenty of cholesterine present and this appears to be generally distributed through the concretion. Bile pigments and organised débris are also present in considerable amount.

The presence of a comparatively large amount of carbonate of magnesium points to the possibility of the calculus having been supplemented in the intestine by the addition of that salt taken as a medicine. Both the patient herself and her daughter-in-law, with whom she has lived, are, however, both very positive that salts have very rarely been taken—in fact, the patient much dislikes taking them. Notwithstanding, therefore, that no previous history of gall-stone trouble is available there seems to me to be no doubt that the entire calculus originated from the gall-bladder and reached the gut by direct ulceration into the large intestine. Had it passed in the first place into the small intestine it seems improbable that it should stick in the sigmoid flexure after safely traversing the ileo-cæcal region. I cannot vouchsafe for the presence of adhesions about the gall-bladder as I did not examine that region at the time of the operation.

Birmingham.

MALIGNANT (?) TUMOUR OF THE RIGHT HYPOCHONDRIUM; LUMBAR INCISION FOLLOWED BY LAPAROTOMY; RECOVERY, WITH CURE.

BY F. W. FORBES-ROSS, M.D. EDIN., F.R.C.S. ENG.

THE following case must be sufficiently rare in itself and also in its difficulties of diagnosis and results as to line of treatment to be worthy of being placed on record in that it is the outcome of two abnormal existing conditions in the abdomen.

The patient, a female, aged 35 years, married, weighing 7 stones 10 pounds, was the subject of extreme emaciation; she was anæmic and pasty, apparently showing signs of a well-marked and advanced cachexia. There was no icterus. Frequency of micturition was present with a trace of albumin and a little sugar in the urine. On examination it was possible to palpate an irregularly ovoid botryoidal hard tumour in the right hypochondrium of about the size of a small cocoanut. The tumour was moveable in the abdomen and was replaceable in the loin and when replaced remained there; it was moveable with respiration and manually could be displaced towards the middle line of the abdomen as well as upwards and downwards. It, however, appeared to be attached deeply in the region of the right crura of the diaphragm. The colon resonance was clearly in front of the tumour and the hepatic flexure appeared to separate it from a small, proptosed liver. In the genu-pectoral position the loin appeared hollowed out and empty when the tumour fell forwards. Careful investigation clearly showed it to be unconnected with the bowel or gall-bladder. The liver did not move with respiration and presented no irregularity of its anterior margin and there were no friction sounds.

The patient complained of constant dragging, dull pain in the side and loin, radiating downwards towards the right iliac region. The tumour had been steadily enlarging. She had been refused operative interference on a previous occasion and according to her account was told that it was a growth of a bad nature connected with her kidney too advanced in her delicate state of health to justify operation. She had had some specific treatment accompanied by iron and

arsenic without any avail and as she was getting rapidly worse and was insistent on something being done for her I decided to cut down and to explore the tumour with a view to removal if possible. A provisional diagnosis was made that the mass was a malignant albuminuria of the suprarenal capsule, which had not materially manifested itself by concomitant well-marked urinary symptoms other than albuminuria and frequency of micturition. The temperature ranged from 100·4° to 101·2° F., and as there were no blood or pus in the urine and no obvious signs of disease in the lungs it was decided after consultation to make an exploratory incision in the loin in lieu of my first intention of approaching the tumour through the peritoneal cavity, which latter procedure appeared to me to offer better facilities of dealing with the condition present and suspected.

On April 28th the patient was put under gas and ether and an incision was made in the right loin with the object of dealing with the supposed renal disease. On exploration of the renal space there was no kidney to be found as its usual position was vacant. Exploration towards the middle line in search of a horse-shoe kidney was negative so the wound was extended forwards towards the outer border of the right rectus and the hand, passed down behind the peritoneum, discovered the kidney lying on the right brim of the pelvis. The tumour was now evidently in the abdominal cavity, having the ascending mesocolon reflected round its outer and anterior surface. The lumbar incision was temporarily plugged with gauze, the patient was turned on her back, and the abdomen was opened in the right linea semilunaris by an incision five inches long. The following condition was now apparent. The anterior surface of the right lobe of the liver and a part of the left were adherent to the abdominal wall. The hepatic flexure of the colon was long, sigmoid, and adherent to the edge and anterior surface of the right lobe of the liver and to the anterior abdominal wall, thus interposing its resonance between the tumour and the liver proper and apparently determining its non-connexion with the liver. The adhesions were carefully separated and the tumour being reached it was found to be an adventitious outgrowth of the posterior border and under surface of the right lobe of the liver, attached thereto by a broad, soft, pliable stalk of hepatic tissue. The whole liver was soft and jelly-like and gave the sensation of handling omentum. The right lobe and tumour were gently dragged out of the abdomen as far as possible with a view to remove the tumour by the galvano-cautery, but as the disease involved the whole of the posterior border of the liver and its connexion with the vena cava it was deemed inadvisable to interfere with it further. Careful examination of the condition and the absence of any signs of a primary malignant growth anywhere else in the abdomen after careful search, it was decided that appearances tended to support a specific causation, mainly affecting the moveable part of the right lobe of the liver. The abdomen was therefore closed in three layers and the loin was closed by deep retaining chromic gut sutures (van Horn and Sawtell's), also fixing the kidney, and the patient was returned to bed after a saline injection into the rectum and a hypodermic of strychnine.

The patient bore the operation well and had five hours' continuous sleep on the first night. After this she made an uneventful and uninterrupted recovery from the operation, both wounds healing by first intention. On the second day after the operation rectal injections of iodide of potassium, 20 grains each three times a day in two ounces of saline solution, were continued for three weeks, as well as mercury by the mouth, pushed to its utmost limit. Being unable to assimilate iron in any form she was placed on half an ounce of ovoferrin solution thrice daily and quickly gained flesh and strength, the tumour rapidly beginning to disappear, till at the date of her discharge from hospital on July 10th it was only palpable as a small mass of the size of a hen's egg. She weighed 10½ stones, looked well, and expressed herself so and free from all pain and discomfort, and apparently quite restored to health.

Remarks.—The special points of interest in this case are the previous failure of specific treatment to effect even temporary improvement; the rapid result of iodide of potassium when the whole dose administered was allowed to pass through the entire portal system instead of only through the gastric portion; the rapid improvement, in gain in weight, blood counts, and general health, under the additional influence of an organic iron preparation which did not interfere with digestion; the simultaneous existence of an ectopic kidney and a diseased outgrowth from the liver occupying the normal position of the kidney, giving its clinical features on examination, aided in this by the peculiar adhesion of the colon; and finally, the kidney itself lower down giving rise to slight renal manifestations, as albuminuria and frequency of micturition and some undoubted renal reflex pain, due no doubt to its abnormal position.

Harley-street, W.

CEREBRO-SPINAL FEVER.

BY P. L. BLABER, M.R.C.S. ENG., L.R.C.P. LOND.

THE occurrence of cerebro-spinal fever in epidemics is well known and its prevalence in Europe and America at the present time makes one fear a similar outbreak in this country. Sporadic cases are by no means rare, but in view of the possibility of an isolated case proving the focus of an epidemic it becomes of the utmost importance to recognise the disease and adopt precautionary measures. The two cases here recorded are illustrative of the toxæmic type of the disease. In one profound toxæmia was indicated by the early appearance of hæmorrhagic spots, great dyspnœa, unconsciousness, and rapidly fatal termination. This quite conformed in type with what is known as "spotted fever." The name is not a good one for these isolated cases, since spots are usually conspicuous by their absence. In this instance the spots were an early and prominent feature, indicating unusual severity of affection. Fortunately, there has been so far no spread of the disease. The other case was ushered in by convulsions, high fever, and a respiration rate of from 70 to 80 per minute, but it was not until some days had elapsed that meningitic signs became evident. It is specially of interest on account of a rare eye complication. Slight conjunctivitis is a common early sign and was present in both cases; sometimes it is associated with photophobia and may be intense. The children belonged to middle-class families and were apparently healthy. The following are the notes of the cases.

CASE 1.—This patient was a male infant, aged four and a half months. He was the second child, was breast fed, and was exceptionally well nourished. He was seen by me at midday on Oct. 13th, 1905. He had been a little restless during the previous night and somewhat fretful. There was apparently nothing definite the matter with him. His temperature was 101·4° F.; he was pale, had dark rings under the eyes, looked ill, and the abdomen was somewhat distended. After a dose of castor oil the bowels acted freely. In the evening his temperature was 102·4°, breathing was rapid, the eyes showed slight conjunctivitis, he was crying at intervals, and he was in a semi-stuporous condition. A small bright red hæmorrhagic spot had also appeared on the right shoulder. During the night he was restless and cried frequently. He took the breast once but vomited almost immediately. Next morning his condition was still worse—the stupor and dyspnœa were more marked, the conjunctivæ were more suffused, and several fresh spots had appeared on both thighs and the lower part of the abdomen; the temperature had fallen to 101°. In view of a possibility of the case being one of cerebro-spinal fever Dr. E. Cautley was called in to see the child in consultation and agreed with the diagnosis. At this time (12 o'clock noon) the crying was continuous and the child objected to being moved or having the head altered in position; the pupils were small and unequal, the right pupil being greater than the left. A few more spots had become evident and the dyspnœa was more pronounced. There were no definite rigidity of the neck muscles, no tache cérébrale, and no evidence of ear or throat trouble. The legs could almost be straightened when the thighs were flexed. The temperature at this time was 101°, the pulse was 192, and the respirations were from 60 to 72 per minute. The case was regarded as a very severe type and an unfavourable prognosis was given. During the afternoon the child became steadily worse and died at 6 P.M. The temperature had fallen to 99° and the pulse had gradually become weaker. Death was immediately preceded by a discharge of turbid fluid from the nose, mouth, and left ear. The thighs and back showed extensive, patchy, purplish discolouration and many more spots had come out on the upper part of the back.

Rare as it is for cerebro-spinal fluid to be discharged in this way there was little doubt that the fluid was of this nature. The fluid must have accumulated with extreme rapidity, seeing that at midday the fontanelle was not unduly tense. Fluid was obtained post mortem by puncture of the ventricle through the anterior fontanelle, and from the sacral canal in the lumbar region, and was sent to Dr. G. L. Eastes for examination. Four cultures were made on blood agar and of these three were sterile. On the fourth a few very minute opalescent colonies grew, which contained Gram-negative cocci, which could not be subcultured, all subsequent cultures made dying out. No development taking place these cocci, as far as could be determined, were the micrococcus intracellularis of Weichselbaum. Another coccus was obtained by cultures on ordinary laboratory media, the reactions of which closely conformed to the one described by Heubner, differing somewhat from that of Weichselbaum, and similar to what was found by Riviere[1] in five out of eight cases of meningitis complicated with tubercle. Film preparations made directly from the fluid showed a few Gram-stained diplococci. Although the bacteriological report is not perfectly satisfactory as to the exact identity of the coccus there is no doubt that it is of the same group as those found by other observers in similar cases.

CASE 2.—The patient was a boy, aged 18 months. Whilst playing in his nursery on the morning of Jan. 3rd, 1905, he suddenly commenced to scream, complained of pain in his left ankle, and appeared unable to put his foot to the ground. Early in the afternoon he was seized with severe convulsions. In spite of hot baths, chloral, and chloroform the fits continued with intervals of remission during the next 24 hours and the child looked moribund, with glassy half closed eyes, cold extremities, the temperature 105° F., and the pulse 170. He was seen in consultation by Dr. Cautley at 12 o'clock noon on Jan. 4th. The temperature was then 103·2°, the pulse was 156, and the respirations were 72. The patient was sweating freely and was rather dusky in colour. There was no corneal reflex, the pupils being small and reacting to light. His condition was one of profound toxæmia. He was completely unconscious and was apparently dying. A diagnosis of some toxæmic condition was made and a pneumococcal infection was thought possible. During the afternoon the convulsions ceased, the temperature was 103°, and the head became slightly retracted. The heart periodically became weak in its action. There was some conjunctivitis in the left eye, which became worse on the following day, with swollen œdematous lids and dilatation of the pupil and a little haziness of the cornea. When Dr. Cautley saw him again in consultation on Jan. 10th there was no doubt that the case was one of cerebro-spinal meningitis. There were rigidity of the neck muscles, irregular flushing of the cheeks, and tache cérébrale. On examination of the eyes the left disc was not visible and the right disc appeared to be blurred. There was no vomiting or constipation. The case ran a prolonged course, with a temperature similar to what is seen in severe attacks of this disease, becoming markedly hectic in type in the third and fourth week, ranging between 96° and 104°. It fell to normal on Feb. 4th for three days, rising again to 100·6° and becoming normal on the 15th, after which it remained normal and subnormal. During the course of the illness the child became greatly wasted, was restless, and had frequent prolonged screaming attacks. The bowels acted fairly regularly. He took food well and rarely vomited. The pulse and respirations were unduly frequent. Occasionally he had attacks in which he became collapsed and the pulse extremely feeble, but he always rallied on administration of brandy. Head retraction was marked throughout and Kernig's sign was present. Convalescence was slow and the child ultimately recovered and is now strong and well. Unfortunately, he completely lost the sight in his left eye. On March 23rd, 1905, he was taken to see Mr. J. H. Fisher. He found the left eye slightly injected and intolerant of light; the anterior chamber was shallow, there was some ciliary injection, and a little lymph in front of the iris; also a yellow cloudy reflex from behind the lens. The lens was clear and no blood-vessels were seen on the mass in the vitreous. Tension was rather above normal. A diagnosis was made of metastatic choroiditis or so-called pseudo-glioma. It was advised that the left eye should be excised if it appeared to be painful or shrinking in size. On June 5th, 1905, the child having much improved in general health, the eye was removed and the diagnosis was confirmed on examination of the eye after removal. This case is of very great interest on account of the severity of the onset, the impossibility of diagnosis during the first few days, the peculiar and rare affection of the eye, the severe and prolonged course of the illness, and the complete recovery with no mental impairment or secondary hydrocephalus.

Brondesbury, N.W.

[1] Transactions of the Pathological Society of London, 1902.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON A CASE OF MALIGNANT PUSTULE TREATED BY EXCISION AND SCLAVO'S SERUM; RECOVERY.

BY RANDAL HERLEY, B.A. R.U.I., L.R.C.P. & S. EDIN.,
HOUSE SURGEON AT THE GENERAL INFIRMARY, DEWSBURY.

A MAN, aged 28 years, a wool blender, attended at the General Infirmary, Dewsbury, at 8.30 P.M. on Sept. 30th with a typical malignant pustule on the left cheek. The patient stated that he first noticed a "heat lump" on his cheek on Sept. 27th. On the 29th he complained of vomiting and headache and was obliged to leave his work at midday. On the 30th he saw a medical practitioner who diagnosed anthrax and advised him to go to the hospital at once.

On admission his temperature was 100° F. The lesion was on the left cheek, midway between the nose and the angle of the jaw, the surrounding œdema was well marked, and the glands in the neighbourhood were enlarged. There was no soreness of the throat. About half an hour after his arrival I freely excised the pustule and the infiltrated tissue around it. On Oct. 1st the temperature was 99° and the pulse was 88. 40 cubic centimetres of Professor Sclavo's serum were injected into the flank and abdomen and in the evening the temperature rose to 100·4°. On the 2nd the temperature fell to 98·8°, the œdema was much less, and the glands were smaller. On the 3rd the temperature was normal. The patient now improved rapidly. He was allowed to get up on Oct. 7th and was discharged on the 14th. Bacteriological examination of the specimen at the County Hall, Wakefield, showed the presence of typical bacillus anthracis.

I have to thank Dr. Charles B. Hall for giving me permission to publish the case.

Dewsbury.

A CASE OF ECTOPIA TESTIS.

BY E. OWEN THURSTON, M.B., B.S. LOND., F.R.C.S. ENG.,
CAPTAIN, I.M.S.

THE patient was a Bengali child, aged five years, who was admitted to the Medical College Hospital in Calcutta on April 14th, 1904. He was an orphan and was an inmate of a missionary home and the condition now to be described had only just been noticed. He was himself unable to give any information as to whether the testicle had always been in that position.

On examination the right testicle was situated at the root of the penis. It was equal in size to the left one, appeared normal in every respect, and was freely moveable, but after being displaced by manipulation it always returned to its original position. The right side of the scrotum was well developed. On April 18th the testicle was exposed by an oblique incision, beginning at the external ring and extending half way down the length of the scrotum. It was found to be well formed and the tunica vaginalis was of the normal size and was closed. It was connected to the surrounding tissues by a few loose adhesions, without any recognisable attachment of the nature of a band which might possibly have been a remnant of the gubernaculum. After the separation of these adhesions it was easily brought down to the bottom of the scrotum and fixed there by a few silk sutures. The wound healed by primary union and the boy was discharged from the hospital at the end of ten days. He was

seen again on Sept. 10th when the testicle was at the bottom of the scrotum.

The interest of the case lies in the extreme rarity of the condition. Jacobson[1] quotes two cases under the care of Dr. W. Popow, and Mr. Bilton Pollard[2] had a case under his care. In the literature at my disposal I have been unable to find records of any other case.

Calcutta.

A CASE OF CARDIAC HYPERTROPHY WITH VALVULAR CALCIFICATION.

BY DAMODAR BABAJI MANDHLE, L.R.C.P., L.R.C.S EDIN., L.F.P.S. GLASG.

THIS case seems to be worthy of being recorded on account of the unusual weight and size of the heart.

The patient was a man, aged 20 years, who was admitted into the Liverpool Poor-law infirmary on Sept. 23rd, 1905, in a collapsed state and suffering from vomiting and hæmoptysis. The physical signs referable to the heart were apical thrill, epigastric pulsation, evidence of failing compensation, double mitral and aortic murmurs, and cardiac dyspnœa. There was no œdema of any part of the body except at the bases of the lungs. The liver and spleen were slightly enlarged; the urine was normal. The previous history was to the effect that he had an attack of rheumatism a few years ago. The gastric symptoms passed away under treatment but the patient gradually became worse, his dyspnœa and nausea could not be controlled, and he died on Oct. 15th. At the necropsy his heart was found to be greatly hypertrophied with dilatation. It weighed 35 ounces when full of clot and 30½ ounces without the clot. The muscular fibres were hypertrophied; the mitral and aortic valves were a mass of calcareous plaques, and the other organs showed signs of extreme congestion and enlargement.

Liverpool.

AN OCCURRENCE OF THE THIRD EYELID IN A HUMAN SUBJECT.

BY WILLIAM ROBERTSON, M.D. GLASG.

A BRIE reference to what may be called a very perfect example of this rare vestigium will, no doubt, be of interest to some readers of THE LANCET. I met with it in an adult male Indian of Dravidian stock who displayed no other physical defect. This supernumerary eyelid was situated under the right upper eyelid and protruded when the eye was in natural function two millimetres beyond the margin of the natural lid. This exposed part which led to the discovery was darker than the rest of the structure, the latter approximating to the colour of the conjunctiva. It was normally sensitive and cartilaginous to the touch. Of the thickness of a sixpence it evenly and completely followed the contour and movement of the upper lid, lying closely over the globe without fold or corrugation on either surface and with a clean-cut margin at its periphery. From a perusal of the above it will be recognised that the condition was an example of the plica semilunaris or membrana nictitans of birds and reptiles. It will be remembered that the conjunctiva is developed from the surface epiblast and that the membrana nictitans divides the conjunctival sac into two portions in birds and reptiles.

I think it will be admitted that this survival is a striking proof, perhaps unique of its kind, of the evolutionary element in nature. Environment, I suppose, would be cited in this connexion.

Durban, Natal.

[1] Jacobson: Diseases of the Male Organs of Generation.
[2] B. Pollard: Medical Chronicle, December, 1895.

ASSOCIATION OF MEDICAL DIPLOMATES OF SCOTLAND.—The winter session of this association will be opened by a conversazione to be held at 11, Chandos-street, Cavendish-square, London, W., on Tuesday next, Nov. 7th, from 9 to 12 P.M. There will be light refreshments, music, and other entertainments, and ladies are invited. Each member is entitled to one ticket for a guest, but may obtain extra tickets at 2s. 6d. each by communicating with Dr. David Walsh, the honorary secretary, at 18A, Hanover-street, London, W.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Exhibition of Cases and Specimens.

A CLINICAL evening of this society was held on Oct. 27th, Mr. H. H. CLUTTON, the President, being in the chair.

Dr. G. E. O. WILLIAMS (introduced by Dr. H. BATTY SHAW) showed a case of Intrathoracic Dermoid Cyst, which is published in full in this issue of THE LANCET (p. 1325).—Mr. W. G. SPENCER described a specimen that was in the museum of Westminster Hospital. These tumours usually grew in the neighbourhood of the thymus which was a region of physiological rests.—Mr. RICKMAN J. GODLEE mentioned a case on which he operated in 1889. These tumours usually communicated with a bronchus and so, if drained, never healed up but remained moist. In the present instance he was of opinion that it was too extensive for removal but he advocated making a large incision with free drainage.—Dr. BATTY SHAW mentioned seven cases that had been operated on. Two had been completely cured, one by removal of the tumour and one by drainage.

Dr. STCLAIR THOMSON showed three cases of Submucous Excision of Deviations and Spurs in the Nasal Septum. The operation to which the patients had submitted was as follows. An incision was made through the mucous membrane of the septum, inside the vestibule of the nose. Through this incision the muco-perichondrium was separated all over the convexity. The cartilage was then cut through a little in front of the original incision but without incising the muco-perichondrium of the opposite side, and the mucous membrane and perichondrium were separated from the concave side of the deformity. The deviation, thus freed on both sides from its mucous covering, was cut out, any bony spur was clipped or chiselled away, and the two mucous membranes were allowed to fall together. The original incision was then closed by two or three stitches. Healing was rapid, there was no formation of crusts, and the nose was left with an intact mucosa. The result was always satisfactory and permanent.

Mr. EDRED M. CORNER showed a series of Cases of Recovery without Spinal Symptoms after Severe Injury to the Neck. 1. A case of Fracture of the Pedicles of the Axis. This case with skiagram had been shown at a meeting of the society on Jan. 22nd, 1904. The accident was the result of the patient rolling out of his chair whilst asleep. Since being shown he had recovered full power of movement of his neck and began to drive his cab again 12 weeks after the accident. 2. A case of Fracture of the Body and Pedicles of the Fifth Cervical Vertebra. This case with skiagram had also been exhibited on Jan. 22nd, 1904. The accident occurred during a gymnastic display on the stage. Since being shown he had resumed his occupation as a professional acrobat. 3. A case of Rotatory Dislocation of the Atlas. This case with skiagram had also been previously shown. The patient's head was still turned to one side but he had to some extent recovered the power of movement. 4. A case of Lateral Fracture of the Axis with Unilateral Rotatory Dislocation of the Atlas. The specimen from this case showed at least one fracture of the atlas, and, by the signs of healing, that the patient had lived after the injury. Moreover, the displaced fragments made new articular facets for themselves, so that there was no paralysis in this situation and therefore presumably none elsewhere. 5. A case of Subluxation of the Atlanto-axial Joint. This case was that of a boy, 13 years of age, who hurt his neck while diving. His head was rotated to one side and his neck was stiff, painful, and immoveable. He was seen a month after the accident and had never had any paralytic symptoms. Reduction was easily accomplished under an anæsthetic. The boy wore a poroplastic collar for a week or so; since then he had completely recovered all his movements, so that it would be impossible to know that he had received a severe injury to his cervical spine. 6. A case of Lateral Fracture of the Axis. A man, 50 years of age, was thrown from his horse on to the top of his head. There had been no paralytic symptoms. The injury took place about seven years ago. He had now recovered full movement and experienced no trouble from his injury. The skiagram showed ankylosis and deformity of the axis.—Mr. C. H. FAGGE considered that the specimen from

Case 4 shown by Mr. Corner was one not of injury but of caries, whether tuberculous or otherwise. As to the other cases, he was disposed to doubt the diagnosis seeing that the only evidence was that of the skiagrams which in spinal cases were untrustworthy.—Mr. CORNER, in reply, said that the skiagrams had been submitted to the society and adjudged to show signs of fracture. As to the specimens from Case 4 he thought that the presence of a dislocation at the right atlanto-axial joint and a lesion between the base of the odontoid process and the left atlanto-axial joint were decisive evidences of fracture.

Dr. R. O. MOON showed a case of Stokes-Adams Disease. The patient was a man, aged 60 years, who five years ago, while on some scaffolding, fell backwards in a faint. A week later he had another similar attack and after that attacks recurred at intervals of six months until June, 1903, when they came on with greater frequency. In the attacks he would fall to the ground with the suddenness of an epileptic seizure, remain unconscious for half a minute, and on regaining his senses feel perfectly well. There had been twitching movements on several occasions but he had never bitten his tongue or passed urine. During the last year he had suffered from vertigo. The pulse was regular and very slow, the rate being usually 28, but it had been as low as 24 and as high as 36. The pulse did not get slower during the attacks as in typical cases. The cardiac impulse was very feeble and there was a soft mi·al systolic murmur at the apex, which, however, was not present when he first came under observation in June, 1904. After the age of 40 years he had been a very heavy smoker till two years ago.—Dr. ALEXANDER MORISON agreed in the diagnosis, although the attacks were not synchronous with a very marked and sudden falling of the pulse-rate. These cases had no relation to the true idiopathic epilepsy but were characterised by definite circulatory disturbances.

Dr. G. A. SUTHERLAND exhibited a Japanese infant showing the Congenital Pigmentation of Mongolians. The patient was a female infant, aged ten months, of pure Japanese descent. Over the scalp the hair was long, straight, and black, and it extended as a soft, downy growth over the forehead and in front of the ears. The skin over the lower part of the sacrum was of a dark blue colour and a similar pigmentation, but of a lighter colour, extended over the buttocks. Smaller areas of blue pigmentation were present along the spine and behind the left shoulder, and there was one patch on the dorsal surface of the left hand.—Mr. GEORGE PERNET agreed that it was a typical example of Mongolian pigmentation. Histologically it had been shown that the pigment was in the corium, not in the superficial layers of the derma. It was said to disappear in some instances about the second year. Apes presented a similar discolouration in the posterior parts and this Mongolian pigmentation might be a relic of our primate progenitors.

Mr. SPENCER showed two cases of Lupus becoming Epitheliomatous after repeated Surgical and Prolonged X Ray Treatment. The first case was that of a girl, aged 15 years, in whom at the age of six years a bluish swelling formed on the gum of the upper jaw which looked like a myeloid sarcoma and histologically appeared to be a sarcoma without giant cells. The disease having recurred several times it was recognised as lupus. It spread to the interior of the nose, then to the outer surface, the eyelid, and forehead. The x ray treatment was commenced about three years ago and was immediately followed by healing, except for some persisting islands. Lately the ulceration had recurred and the x rays now excited ulceration and sloughing, the edges of the ulcers becoming indurated and everted and the epithelium growing downwards. The second case was that of a woman, aged 35 years. Lupus had commenced in the right parotid region 22 years ago and was treated by scraping. 19 months ago the x rays were applied, on one occasion for ten minutes. A burn resulted and then a swelling, which later spread downwards below the angle of the jaw, forming an abscess which was incised. The ulceration began to fungate about ten weeks ago and on Oct. 17th a piece removed was found to be epitheliomatous.—Mr. CECIL H. LEAF referred to a case of lupus in which epithelioma developed after three applications of the x rays. Undoubtedly there was some re·ationship between tuberculosis and epithelioma; in 35 per cent. of cases of epithelioma a well-marked family history of tubercle could be revealed.—Mr. CAMPBELL WILLIAMS had seen epithelioma and xeroderma pigmentosum supervene upon lupus after scraping.—Mr. PERNET regarded epithelioma as an extremely rare complication of lupus vulgaris, though it was well known that different varieties of cancer might occasionally supervene upon any of the granulomata, whether of gummatous or tuberculous origin.

Dr. A. E. GARROD exhibited a case of Peculiar Pigmentation of the Skin in a female child, aged two and a half years. She had never sat up or talked, was brachycephalic, and showed some of the characters of "Mongol" idiocy, but the facies was not typical. There was some spasticity of the limbs. The pigmentation was linear and in some parts the lines were arranged in whorls; it was symmetrical in distribution but did not follow the course of nerves.—In reply to Dr. SUTHERLAND, Dr. GARROD added that the pigmentation had developed at the age of 12 months after an attack of what the mother called "eczema."—Dr. GARROD also exhibited a case of Cyanosis with Dextrocardia in an infant, aged seven months. There was no cardiac murmur at any orifice and the other viscera were not transposed.

Mr. V. WARREN LOW exhibited a case of Supra-acromial Dislocation of the Outer End of the Clavicle in a man, aged 64 years.

Mr. LAWRIE H. MCGAVIN showed a man, aged 42 years, who had an Epithelioma of the Lip, which from its rapid evolution had at first been mistaken for a chancre.—Mr. MCGAVIN also exhibited a case of Rodent Ulcer treated with the X Rays. The ulcer had been present for eight years and as the patient refused operation he had been treated with the x rays. The result was most successful, for after nine applications the ulcer appeared to be quite cured.—The PRESIDENT remarked that as a rule the knife was preferable to the x rays in cases of rodent ulcer where the growth was capable of removal. In his experience, though the x rays appeared to do good, the growth generally returned a year or two later.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—The opening meeting of the present session of this society was held on Oct. 17th, Mr. William Handcock, the President, being in the chair.—The President delivered his inaugural address entitled "A General Practitioner's Comments on the Demerits of Alcohol as a Therapeutic Agent." He said that although he was not a teetotaler he had not found it necessary for seven years ever to order alcohol in his practice. He believed (1) that drinking among women was much more common than even medical men appreciated and that it was very frequently due to taking alcohol as a medicine, often to relieve dysmenorrhœa; and (2) that many medical men ordered alcohol as a routine treatment, whether it was in the particular case absolutely necessary or even contra-indicated. In almost every case of emergency brandy was at hand and medical men were rarely called to cases of unconsciousness in which it had not been given before they arrived and probably in 99 per cent. of these cases it was contra-indicated. He wished to outline the means of treatment which he substituted for alcohol and would do so under the three headings of midwifery, surgery, and medicine. 1. In prolonged labour, instead of the transient stimulating effect of alcohol he advocated earlier recourse to chloroform and forceps. In post-partum hæmorrhage he recommended lowering the patient's head and raising the foot of the bed, together with the administration of quantities of warm fluid by the rectum, the veins, or the mouth and, if necessary, hypodermic injections of strychnine. In post-partum febrile conditions he employed local syringing, &c., together with quinine and, if necessary, strychnine. 2. In surgical cases he deprecated the practice of giving brandy before operations in a routine way. In anæmia due to hæmorrhage he tried to fill the emptied vessels as in post-partum hæmorrhage. Shock he regarded as hæmorrhage into the splanchnic vessels, to be treated by warm fluids and strychnine, which helped to contract the dilated vessels. As regards septic conditions, he quoted Professor G. Sims Woodhead to show that alcohol favoured suppuration by its negative chemiotaxis and also quoted Dr. Barr's statement that by giving alcohol "the systolic blood pressure is lowered, the systolic output from the heart is diminished, and the cardiac energy is wasted in pumping blood into relaxed vessels." 3. Passing on to the subject of medical cases the President said that in pneumonia his experience was that most of the uncomplicated attacks never showed any indication for stimulation and, indeed, ran a successful course, very little influenced by drug treatment. The signs of failing heart for which he looked were: facial aspect, lowering of the

force and tension of the pulse, and especially its increasing frequency. He in such cases gave from five to ten minims of tincture of nux vomica every three or four hours or more often if required. Digitalis and strophanthus also had their uses. For pain a mustard-leaf often gave relief, or if absolutely necessary a hypodermic injection of morphine. Since discarding alcohol he had had fewer cases of bad delirium and of hiccough. Repeated sponging with tepid water was of great benefit in reducing temperature, controlling delirium, and producing sleep. Other means of treating sleeplessness included paraldehyde, of which he gave one or two drachms in capsules, and if there was violent delirium morphine under the skin. With regard to typhoid fever, he mentioned that a lady relative of his who had done philanthropic nursing in the East-end of London had found that almost every case of typhoid fever, mild or severe, and whoever the medical man might be, was treated with brandy and milk right on into the convalescent period. Here, again, he thought the fact that a patient had a certain disease was no excuse for giving alcohol. When in very bad cases stimulants were called for he agreed with Dr. H. D. Rolleston that nothing answered so well as strychnine. In dysmenorrhœa alcohol was always contra-indicated because of the great risk of inebriety. For obstructive cases, dilatation gave relief and one very bad case had been cured by Bedford Fenwick's operation. For spasmodic cases he used suppositories containing a quarter of a grain of extract of belladonna repeated hourly three or four times. Purgation where required tended to relieve pelvic congestion and in cases associated with prolapsed ovaries, retroflexion, &c., local treatment, with purges for a day or two before the menstrual period and if necessary antipyrin, often gave relief. In conclusion, the President described his method of treating heart disease consecutive to rheumatism and expressed the opinion that the unnecessary use of a drug so powerful for harm as alcohol was not only unscientific but reprehensible.—Dr. William Craig read a long paper in which he gave very full details of seven cases of diabetes with especial reference to the questions of causation, inheritance, and the health of the patients' children. Of the seven cases cited, two were father and daughter. The family of another showed great nervous disorders in every member except the first-born, while the last-mentioned case was the third member of the family who had succumbed to this disease. One patient, a widow, 60 years of age, believed herself to have been perfectly well until she went to live in a house the previous occupant of which had died from diabetes.

HARVEIAN SOCIETY OF LONDON.—A meeting of this society was held on Oct. 26th, Mr. C. B. Lockwood, the President, being in the chair.—Mr. Herbert Tilley read a paper on the Symptoms, Diagnosis, and Treatment of Some of the Common Forms of Nasal Obstruction. He pointed out that one of the most obvious pathological features in the physical degeneration of the youth of to-day was an unhealthy development of glandular tissue in and around the upper air passages and that such a condition led to a lack of development in, or an irregular growth of, the bony framework of the face, jaws, and chest. Such conditions were exemplified in the pinched nostrils, narrow face, high arched palate with crowded teeth, and the long, narrow, ill-developed chest which were so common in cases of nasal obstruction due to the presence of adenoids and enlarged tonsils. A unilateral nasal obstruction in a child associated with a purulent discharge was most frequently due to a foreign body in the nose, while a bilateral, purulent, or muco-purulent nasal secretion in children was generally due to adenoids. Recurrence of the latter after operation was usually due to inefficient removal and this was especially the case when the index finger was used in the removal of the growth. The various forms of hypertrophic rhinitis were described and the best methods of dealing with them. When there was an enlargement of bone as well as mucous membrane, the anterior third of the inferior turbinal should be removed by means of strong scissors and cold wire snare. Deviations of, and outgrowths from, the nasal septum were a frequent cause of nasal obstruction in the adult and in a small proportion of cases might induce such reflex effects as asthma, paroxysmal sneezing, and so on. In the removal of these obstructions care should be taken to preserve as much of the normal mucous membrane as possible. Diagrams and specimens were shown illustrating the method of submucous resection of the nasal septum. The operation was a vast improvement on older methods because healing took place rapidly and there was very little, if any, crust formation or growth of "regenerative callus" which hitherto had frequently reproduced after operation a considerable amount of the original obstruction. A great advantage possessed by the "resection" method was that in the after-treatment no "intranasal splints" were necessary. The latter were a source of continual discomfort to the patient and to some were quite intolerable. Mr. Tilley emphatically condemned intranasal operations in cases of slow progressive deafness when the Eustachian tubes were patent and when inflation of the tympanum produced not even temporary improvement in the hearing. When, however, marked nasal obstruction was associated with deafness which varied in degree from time to time, and which could be relieved by inflation of the tympana by means of Politzer's bag or the Eustachian catheter, then they might reasonably hope that the removal of the nasal obstruction would materially and permanently improve the hearing. In cases where the deafness was due to a mixture of catarrhal and sclerotic changes in the tympanic apparatus, he thought that the question of removing any nasal obstruction could even here be settled by an appeal to the effect of inflation of the tympanum. If this improved the hearing they might operate with hope of success, but it was doubtful if any good would result from the removal of the nasal obstruction if the results of inflation were negative.—Dr. R. H. Scanes Spicer remarked on the difficulty of defining nasal obstruction and the importance of collapse of the alæ nasi during respiration as an index thereof. In mixed cases of deafness, with the presence of a definite catarrhal element, it might be advisable to remove the latter by a suitable nasal operation, although the cure of the deafness could not be obtained.—Dr. L. H. Pegler referred to types of nostrils and discussed hypertrophy of the middle turbinate as a cause of obstruction. In the correction of septal deviations suitable splints were sometimes useful.—Mr E. W. Brewerton read a paper on Extirpation of the Lacrymal Sac. After giving a short history of the methods for destruction of the sac, he described Kuhnt's operation and Cirincione and Axenfeldt's modifications and mentioned the cases in which the operation was most urgently needed. He remarked on the frequency with which the extirpation was performed in Germany (Adolph has collected over 500 cases, nearly all giving excellent results) and urged that the operation was performed far too seldom in this country. At any of the ophthalmic hospitals patients could be found suffering from chronic dacryocystitis, with all its dangers and discomforts, who had been attending for months or even years; all of these patients could be permanently relieved of their trouble by extirpating the lacrymal sac.

MIDLAND MEDICAL SOCIETY.—At a meeting of this society held at Birmingham on Oct. 11th Mr. Joseph Quirke was elected President, Mr. J. Garner treasurer, and Mr. L. P. Gamgee and Dr. J. Jameson Evans honorary secretaries for the session 1905–06.—Dr. F. Edge read a paper entitled "The Repair of Chronic Complete Rupture of the Perineum."—A meeting of the same society was held on Oct. 25th, Mr. Quirke, the President, being in the chair.—Dr. J. Douglas Stanley showed a man, aged 55 years, who had suffered for six months from symptoms of Myasthenia Gravis. These were drooping of the right eyelid, difficulty in masticating, and a feeling of weakness in the muscles of the neck, shoulders, and arms, all of which were more marked after the day's work. The tendon reflexes were present and active, though less so after repeated stimulation. Myasthenic reaction was obtained in some of the muscles.—Mr. F. V. Milward showed: 1. A child on whom he had successfully operated for an Ileo-cæcal Intussusception at the age of nine months. 12 hours had elapsed since the onset of symptoms. Reduction by manipulation after laparotomy was easily effected and the child made a good recovery. 2. A specimen of the Ileum and Cæcum from a boy upon whom laparotomy had been performed three times for intussusception between the ages of six and 18 months—the first and third times by Mr. Milward and the second time by Mr. Gamgee. The specimen showed a large ulcer in the last inch of the ileum. This had no doubt produced the recurrence of the symptoms. 3. A specimen showing the Terminal Portion of the Ileum which had been severely bruised by its participation in an ileo-colic intussusception.—Dr. Norman Glegg showed a woman, aged 61 years, suffering from Osteitis Deformans, the symptoms having begun at 45 years of age. The cranium was enlarged;

both clavicles, the left humerus, the right ulna, both femora, and both tibiæ were bent. The face and hands were unaffected.—Dr. A. Foxwell showed a man suffering from an Early Stage of Insular Sclerosis. 14 weeks previously the symptoms commenced with an itching sensation in the feet which soon ascended to the hips and became accompanied with pain. A week later the ulnar sides of the arms were similarly affected. All the limbs lost power. Ten weeks previously he had to strain to pass urine and this came in jerks, and there was obstinate constipation. Six weeks previously the pain in his legs forced him to give up work. On admission his mentality was unimpaired; there were slight nystagmus and hypermetropia. Speech was slightly staccato. All sensations were quite good. There was some volitional tremor. The calves were slightly atrophied and there was weakness with spasticity of both arms and legs, the right arm and leg being considerably weaker than the left. All the limb reflexes were greatly increased with extensor reflex of both big toes and marked patella and ankle clonus. There were stammering micturition and obstinate constipation. Since admission all these signs had much improved and the nystagmus, tremor, and staccato speech were barely detectable. The stammering micturition and constipation were also greatly better, but the weakness of the limbs and activity of the reflexes were still striking. This remission of the symptoms was a good exemplification of the varying course of the disease and clearly demonstrated the great or almost insuperable difficulty of making a correct diagnosis if the case was first seen when one of these remissions was at its height.—Dr. A. S. Barnes showed a specimen of Thrombosis of the Superior Mesenteric Artery.—Dr. J. G. Emanuel showed a man, aged 56 years, affected with Acromegaly. The patient exhibited very marked enlargement of the hands and feet, a kyphotic curve in the dorsal region, and considerable deformity of the face, including prominent supraciliary ridges, thickening of the skin of the forehead, hypertrophy of the nose, enlargement of both maxillæ, especially of the inferior, which was prognathous, a very large tongue, and a thickened, protruding lower lip. These changes had come on insidiously and had gradually progressed during the last 20 years. Vision was unaffected, the fundi oculorum were normal, and the fields were unaltered to white light but concentrically contracted to colours. Radiographs showed the usual enlargement of the metacarpal and phalangeal bones with marked osteophytic outgrowths at their extremities. But while general enlargement of the bones was the rule the shafts showed in places a definite amount of thinning, a change which coincided with the patient's statement that of late (the last few months) his hands and feet had been getting thinner.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Oct. 20th, Dr. J. Lindsay Steven, the President, being in the chair.—Dr. G. H. Edington read a short paper on "Double Lip" (hypertrophy of the labial glands). Accounts were given of two cases in which he had recently operated and photographs and specimens were shown. His patients were both males, 18 years and 25 years of age, and the condition had been present for 15 years and 10 years respectively. The treatment consisted in excision of the fold of mucous membrane and removal of all the glands which were visible. The cosmetic result was good. He referred to the rarity of references in literature to the condition and in conclusion regretted that he could give no opinion as to the causation of the condition. He then showed an Automatic Wound Retractor which he had recently designed. The principle of the instrument was a simple U-spring to the ends of the limbs of which retracting hooks were jointed. He had found the instrument of considerable use in such operations as resection of rib, radical cure of hernia, and mastoid operation. The instrument had been made by Messrs. Baird Brothers of Glasgow.—Dr. J. Kerr Love gave a description of the Steps of the Radical Mastoid Operation, illustrated by stereoscopic photographs. He also read the reports of five cases in which this operation had been performed. Two of these patients were shown. In Case 1 the discharge ceased in four weeks; in the other cases before the ninth week. Case 5 was remarkable in that there was no mastoid tenderness present and at the age of four years there were large and widely spread mastoid cells present. He also showed an Excised Malleus with a Polypus growing from it.—Dr. J. H. Nicoll showed Instruments for Osteoplastic Resection of the Skull. The saws and trephine were worked by the hand motor of Messrs. Down Bros. or by electric motor. The steps of the operation are as follows: 1. A rectangular flap of scalp and pericranium is cut and its margins are slightly raised from the skull. 2. At the two free corners quarter inch discs of skull are removed with the guarded trephine. 3. The thickness of the skull is ascertained by measuring one of the discs on the "pick" scale, which is marked "1, 2, 3, 4" (corresponding respectively to $\frac{1}{16}$ths, $\frac{2}{16}$ths, $\frac{3}{16}$ths, and $\frac{4}{16}$ths of an inch). 4. The circular saw is selected the number of which corresponds to the number on the "pick" scale representing a free or cutting depth one "size" *less* than the ascertained thickness of the skull. The numbers of the saws correspond with those on the "pick." Thus saw No. 1 will cut a gutter in the skull $\frac{1}{16}$ths of an inch in depth. In a skull with a thickness of $\frac{4}{16}$ths of an inch (as ascertained by the pick scale) a saw with a cutting depth of $\frac{3}{16}$ths of an inch—i.e., No. 3 (accurately provided by the flange guards on the sides)—will cut almost through the skull, leaving the internal table intact. The saw selected is fitted in the driving handle (held in the left hand), the controlling handle is applied (held in the right hand), and a gutter in the skull is cut round the three free sides of the flap. 5. The "under" guard of the "cranked" chisel is passed into one of the trephine holes (where it rests between the dura mater and the internal table) and with the chisel the internal table is cut round the flap. 6. With the chisel the base of the bone flap is "notched" (to obtain a "breaking line") and the flap is raised, fracturing the base along that line. (*Note.*—If a motor is not available the chisels with the "over" guards are employed. Having made the scalp incision, a chisel is selected and the bone is cut for a short distance. With the "pick" it is ascertained that the skull is completely divided and if this is not so a deeper chisel is selected and the operator proceeds round the flap. The chisels are so guarded that "plunging" is impossible, while the rounded angle of the blade protects the dura mater from injury.)

HUNTERIAN SOCIETY.—A clinical meeting of this society was held at the London Hospital on Oct. 25th, Mr. F. R. Humphreys being in the chair.—Mr. H. M. Rigby showed: 1. A patient on whom he had performed the operation of Splenopexy on account of excessive mobility of the spleen. The severe dragging pain complained of had been relieved by the operation. 2. A Small Metal Bicycle, measuring one and three-quarter inches by one inch, which had been impacted in the œsophagus of a child five years of age, successfully removed by œsophagotomy. An x ray photograph was shown.—Mr. H. H. Bashford, for Dr. J. H. Sequeira, showed a case of Tinea of unknown nature of eight years' duration and remarkable distribution, with an ulcer at the umbilicus of two years' duration. A mycelium of unknown nature had been isolated from the skin and a diphtheroid bacillus from the ulcerated surface.—Mr. T. H. Openshaw showed: (1) A case of Unilateral Congenital Dislocation of the Hip treated most successfully by Lorenz's operation; (2) a case of Old Hip Disease with Ankylosis in a position of flexion and adduction on which he proposed to perform Gant's operation; and (3) a case of Bilateral Coxa Vara.—Dr. Bertrand Dawson showed two patients with Syphilitic Disease of the Liver, the syphilis being congenital in one case and acquired in the other. Each case exhibited a well-marked Riedel's lobe.—Dr. Robert Hutchison showed: (1) A child with a Peculiar Nervous Condition, for which he suggested a diagnosis of acute cerebellar ataxy, resulting from polio-encephalitis affecting the cerebellum; and (2) a child with Tuberculous Peritonitis.—Dr. Lewis A. Smith showed a Portion of the Colon removed Post Mortem from a case of Chronic Lead Poisoning. There was much pigmentation of the mucous membrane due to deposit of lead. A microscopical section was shown.—Mr. Hunter Tod showed two patients in whom a Radical Operation on the Frontal Sinus, followed by free drainage, brought about complete cure of old standing antral suppuration, and a patient on whom he had operated successfully for a Temporo-sphenoidal Abscess.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Oct. 26th in the society's new room in the University, Dr. W. Tusting Cocking, the President, being in the chair.—Dr. G. Carter showed a woman with symptoms of Ulnar Paralysis, which he ascribed to a tumour on the nerve trunk, situated just above a displaced internal condyle. As the signs were not strictly confined to the ulnar distribution an alternate diagnosis of progressive muscular atrophy was suggested, the nodule on the nerve

being possibly bursal in origin.—Dr. Arthur J. Hall showed specimens from a case of Carcinoma of the Colon in which the symptoms of malignant disease, except for rapid loss of flesh, were practically absent. The symptoms for which the patient attended were those due to thrombosis of the inferior vena cava and iliac veins. These persisted for a few weeks when the patient was suddenly seized with right hemiplegia and aphasia and died in a few days. A "paradoxical embolism" through a patent foramen ovale was a possible explanation but the necropsy showed a simple embolus arising from mitral disease which in the absence of any rheumatic or other history had probably arisen as an indirect result of the cachexia due to carcinoma.—Dr. W. J. N. Vincent read a paper on the Relation of Syphilis to General Paralysis of the Insane. After pointing out that the latter disease was on the increase and that a history of syphilis was usually obtainable he compared the relative rarity of the disease in Eastern nations, where, speaking generally, syphilis, though rife, was untreated, with its greater frequency in Western nations where syphilis was also common but treated with mercury and iodide, and discussed the possibility of the treatment having some influence in the production of paresis.—Mr. A. W. Cuff showed specimens of Multilocular Ovarian Cysts with Pedunculated Warty Papillomata apparently growing from the ovarian cortex.

Reviews and Notices of Books.

Medicine and the Public. By S. SQUIRE SPRIGGE, M.A., M.D. Cantab. London: William Heinemann. 1905. Pp. 293. Price 6s. net.

As the greater part of this book was published as a series of articles in THE LANCET no detailed review of it will be expected from us. The articles, as was stated in a prefatory note, proposed to offer to our readers a picture of the present position of the medical profession, considered especially with regard to the existing conditions of society, and we issued them with the endorsement that many of the writer's facts were to be found scattered throughout our columns, while we considered him to be generally sound in his conclusions. During the appearance of the serial articles in THE LANCET letters received by us from our readers afforded ample proof that the manner in which Dr. Sprigge was bringing together, and presenting systematically, information of a very scattered and varied kind was useful to them in a very high degree, and now that the work is appealing to a public audience as well as to members of the medical profession we hope that its valuable nature will be widely recognised. The expansion of knowledge that has taken place in medicine has been paralleled in many other branches of knowledge, whether nearly allied to medicine or not, and with this expansion of knowledge the number of persons who can rightly appreciate the complex difficulties of medical practice when these are revealed clearly to them should likewise have increased. To make such a revelation is the task that Dr. Sprigge has undertaken in "Medicine and the Public," and, in spite of his connexion with ourselves, we think that we may express the opinion that he has discharged this task well and ably. Medicine being inextricably bound up with nearly all other sciences must progress with them, while the growing public acquaintance with scientific methods will lead to an improved estimate of medicine. The medical profession has nothing to fear from the judgment of an enlightened public; it is only the half-educated public, the public reading glibly but not thoughtfully, which accepts the slighting—nay, calumnious—estimates of our professional work now and again emanating from the press. No one can read Dr. Sprigge's book without learning that the modern medical man has as a student an arduous career. His curriculum is comprehensive and his examinations are numerous, difficult, and somewhat uncertain in result. On admission to the roll of the profession he finds, for the most part, a hard life before him, though a life with many compensating advantages and pleasures. It is also a life the drawbacks of which could, many of them at least, be removed with no great difficulty by legislative amendment, but before Parliament is likely to listen to any cry for medical reforms the public must be convinced that the proposed reforms are in the general interest and not designed wholly to benefit medical men. Here we think that Dr. Sprigge's book may well play a valuable part. He recognises to the full, as we have done in our columns, that only such medical reforms as are likely to benefit the public have a chance of becoming law and he shows, often in a very convincing way, that if the demands made by instructed medical opinion were granted the public, so far from being oppressed by a monopoly, would rejoice in a more sanitary environment and be happier and wiser than is now the case.

An Introduction to Pathology and Morbid Anatomy. By T. HENRY GREEN, M.D. Lond., F.R.C.P. Lond., Consulting Physician and Emeritus Lecturer on Clinical Medicine at Charing Cross Hospital and Consulting Physician to the Brompton Hospital for Consumption and Diseases of the Chest. Tenth edition, revised and enlarged by W. CECIL BOSANQUET, M.A., M.D. Oxon., F.R.C.P. Lond., Assistant Physician (late Pathologist) to Charing Cross Hospital and to the Brompton Hospital for Consumption and Diseases of the Chest; formerly Fellow of New College, Oxford. With coloured plate and 348 illustrations in the text. London: Henry Renshaw. 1905. Pp. 636.

Dr. Green's well-known text-book of pathology and morbid anatomy has so firmly established a reputation that no words of commendation are necessary. The appearance of a tenth edition proves the popularity of the work as a manual for students and under the editorship of Dr. Bosanquet it has been revised and enlarged by 40 pages. The enlargement is due chiefly to additions rendered necessary in incorporating some account of the advances made in certain sections of pathology since the ninth edition appeared. The chapter devoted to animal parasites has been extended so as to include brief descriptions of trypanosoma and the "Leishman-Donovan bodies," together with an improved account of bilharzia hæmatobia, with a good figure. The description given of the malarial hæmatozoon is clear and the two cycles in its life-history, the sexual and the asexual, are illustrated by a useful schematic figure. In the section devoted to vegetable parasities a *résumé* of the chief phenomena of immunity has been added with a discussion of the significance of bacteriolysis, and of antitoxins, agglutinins, and precipitins. We are glad to find included a short but intelligible account of Ehrlich's "side chain" theory of immunity, illustrated by diagrams from the editor's volume on "Serums, Vaccines, and Toxins."

Dr. Bosanquet has also added a short chapter on Intoxications, Auto-intoxications, and Nutritional Diseases, in which reference is made to gout, diabetes, and to morbid conditions the result of perversions of the so-called internal secretions. This chapter suffers from its brevity and since auto-intoxications such as uræmia and the acid intoxication of diabetes are included it is difficult to see why "cholæmia" has been omitted, or rather relegated to the chapter on the pathology of the nervous system, where a brief reference is made to it.

In the chapter on tumours there are a few changes and reference is made to the heterotype mitoses which occur in the multiplication of certain tumour cells. Some of the chief theories of tumour formation are given, though we should have thought that Adami's "habit of growth" theory and some of the newer embryological views were as deserving of mention as many of those given. No changes have been made in the general plan of the work, which is readable and

copiously illustrated, the latter an essential in a work of this kind. This, the tenth edition, should serve as a valuable manual for the student working in the museum or post-mortem room and will sustain the reputation of its predecessors.

A Manual of Midwifery for Students and Practitioners. By HENRY JELLETT, B.A., M.D. Dub., F.R.C.P. Irel., L.M., Gynæcologist and Obstetric Physician to Dr. Steevens' Hospital, Dublin, &c.; with the assistance in special subjects of W. R. DAWSON, M.D. Dub., F.R.C.P. Irel.; H. C. DRURY, M.D. Dub., F.R.C.P. Irel.; T. G. MOORHEAD, M.D. Dub.; and R. J. ROWLETTE, M.D. Dub. With nine plates and 467 illustrations in the text. London: Baillière, Tindall, and Cox. 1905. Pp. xxvi.–1158. Price 21*s.* net.

THE success which attended the appearance of Dr. Jellett's small manual of midwifery certainly justified the publication of this more comprehensive and detailed work. In the sections dealing with anatomy, general medicine, pathology, and mental diseases the author has obtained the assistance of various gentlemen, all qualified to write on these more special matters. The result is a work of much merit and originality, based largely on the teaching of the Dublin School and the experience of the Rotunda Hospital. The book, naturally enough from the point of view of the critic, is not without its shortcomings, but they are few in number and many of them concern matters on which there may well be two opinions. In the description of the development of the amnion we think it would have been better if the latest views as to the formation of this membrane in the human ovum had been given. We notice, too, that the amnion is still described as the outer covering of the umbilical cord. The account given of the formation of the corpus luteum in view of the increased importance of that body at the present time is hardly sufficiently detailed and the interesting question as to the origin of the lutein cells is not touched upon. In his description of the various presentations the author describes separately anterior and posterior fontanelle presentations. This, we think, is unnecessary and leads to a good deal of repetition. In the chapter on asepsis and antisepsis a very interesting fact is pointed out—namely, that the use of chlorine had been adopted in Dublin some 30 years before Semmelweiss proved its value in Vienna. Collins, Master of the Rotunda Hospital from 1826 to 1833, was obliged to close the hospital on account of the high mortality from puerperal fever. While it was closed he had all the wards in rotation "filled with chlorine gas in a very condensed form for the space of 48 hours"; the floors and woodwork were also painted over with chloride of lime which was left on for 48 hours more. This was done in the year 1829 and from that time until the end of his mastership in 1833 "he did not lose one patient from this disease." In the chapter on the Nature of Puerperal Fever we are glad to see that Dr. Jellett expresses his disbelief in the auto-infection theory of its origin. The section dealing with the treatment of a face presentation is very complete and includes an account not only of Schatz's method of converting a face presentation into a vertex presentation but also those of Baudelocque and of Playfair and Partridge. We fancy that many obstetricians will be prepared to combat the statement that a face presentation is more dangerous for both the mother and the fœtus than a breech. There is also a paragraph on p. 398 which we think many authorities would take exception to—namely, in the section dealing with the prognosis of a posterior fontanelle presentation it is said that there is sometimes such marked pressure exerted by the head in a generally contracted pelvis on the ureters as to cause obstructive suppression of urine and so to favour the occurrence of eclampsia. Sir William Roberts pointed out years ago that in cases of obstructive suppression of urine neither convulsions nor coma ever occur.

We certainly cannot agree with the author in his condemnation of the method of rotation of the head by internal manipulation in the treatment of unreduced occipito-posterior presentations. In our hands the method has yielded excellent results and has given us in difficult cases, as Dr. Jellett points out that it did to Smellie, "great joy," nor have we found it lead, when properly carried out, to any injuries of the head of the fœtus or of the maternal soft parts.

The section dealing with the effect of the uterine contractions on the uterus itself, the ovum, and the pelvic contents is particularly good and clear. On the other hand, that on the mechanism of labour is not so clear and we think that the author has not given as simple an explanation as he might have of the causes of internal rotation. Surely it is almost entirely due to the action of the inclined pelvic floor. In this description a great deal too much importance is attributed to the helical shape of the internal surfaces of the ischium. A very interesting chapter is that dealing with the prognosis of labour in which the statistics of the Rotunda Hospital and those of the Registrar-General are contrasted. The general maternal death-rate of the former is 0·27 per cent. and of the latter 0·49 per cent., and an examination of the various causes shows that while the death-rate from septic infection throughout the country was 21 per 10,000 labours, in the hospital it was only 6 per 10,000 labours, or only a third as great.

In considering the question of pelvimetry the author recommends the use of Skutsch's instrument, by which alone he maintains it is possible to get an accurate measurement of the pelvic diameters, especially of the transverse. The account of the anatomical changes in the tube in cases of tubal pregnancy, like the account of the normal anatomy of the development of the membranes, is hardly so complete or up to date as we should expect. Dr. Jellett adopts Webster's view that a decidua is formed in the tube, although this has been shown by many observers not to be the case. No mention is made of the embedding of the ovum in the tubal wall or the part played by the epithelium of the chorionic villi in the destruction and thinning of the tubal wall which precede the ultimate rupture.

In the chapter on ante-partum hæmorrhage the author adopts a division into cases occurring during the first three months of pregnancy, the second three months, and the last four months. This classification has much to recommend it but in view of the practically universal custom of limiting the term ante-partum hæmorrhage to include only cases of placenta prævia and accidental hæmorrhage it is not likely to receive any general acceptance. The book contains a very good account of the surgical fevers of childbed and the diseases of the puerperium and concludes with two chapters devoted to the physiology and pathology of the infant. The whole forms a work well arranged and very suitable for students. The illustrations are fair and the index is good.

Immunity in Infective Diseases. By ÉLIE METCHNIKOFF, Foreign Member of the Royal Society of London, Professor at the Pasteur Institute, Paris. Translated from the French by FRANCIS G. BINNIE, of the Pathological Department, University of Cambridge. With 45 figures in the text. Cambridge: The University Press. 1905. Pp. 591. Price 18*s.* net.

THAT a translation of Professor Metchnikoff's valuable and fascinating book on immunity should be made was most desirable, we might almost say indispensable, and those who may have been deterred from studying the original owing to its being in a foreign tongue will be grateful to Mr. Binnie for the work which he has done. We may say at once that the translation is most satisfactory, the few defects in

lucidity or phraseology which we have noted being such as might be counted on the fingers of one hand. The translator has aimed at reproducing the original text as closely as possible and has refrained from adding any notes to bring the work up to date. This was probably wise, though the rapid extension of knowledge and speculation in this branch of science renders it unavoidable that the reader who does not note that the date of Professor Metchnikoff's original preface is 1901 should remark the absence of reference to some recent work of importance.

The book is a comprehensive statement and defence of the theory of phagocytosis with which the name of Professor Metchnikoff is so universally associated. This theory on its first enunciation met with widespread opposition and at many times it has been said by its opponents to have been put finally out of court. Yet its author, if we may use a colloquial expression, "comes up smiling." Recent researches have indeed to some extent built a bridge between the old opposing theories of humoralism and vitalism by showing, on the one hand, that one at least of the substances contained in immune serums, the alexin or complement, is in all probability derived from the leucocytes; and on the other, that these cells are in many cases induced or enabled to ingest bacteria by the aid of certain bodies present in the serum, to which Dr. A. E. Wright has given the name of "opsonins." Truth, like moral virtue, often lies in the middle between the two extremes of controversy and it seems probable that such is the case in the opposing theories of immunity.

After a short introductory chapter Professor Metchnikoff proceeds to examine the phenomena of immunity as observed in unicellular organisms and shows that the minute animals which form the protozoa have the power of digesting parasitic plants by means of a special ferment secreted in the vacuoles of their protoplasm, while indigestible bodies are thrown out unchanged. But it is not only the higher plants and animals which resist bacteria: these very fungi possess powers of protecting themselves against antagonistic influences, and some interesting illustrations are given of the power of bacteria to secrete protective membranes to ward off poisonous substances with which they are brought into contact.

In Chapter II. the resistance of multicellular plants is considered and it is shown that these, too, are able to accommodate themselves to unsuitable conditions and that they also have the power of protecting themselves against attack by means of special secretions—wounds, for example, being soon covered in by a sort of dressing of coagulated juice. In the animal kingdom matters become more complicated. In Chapter III. some interesting observations on the process of assimilation in lowly organisms are given and it is shown that their cells exhibit the power of digesting foreign material by means of intracellular ferments. As the tissues become more complicated and function more specialised we find that the duty of attacking foreign bodies is delegated to special wandering cells to which Professor Metchnikoff has given the name of phagocytes. Representatives of these occur as low in the animal scale as the cœlenterata, but the process is more easily observed in higher animals. Some illustrations of the digestion of blood corpuscles by amœboid cells in the cockchafer larva are given. In vertebrate animals we can distinguish two great classes of phagocytes, the large and the small, or macrophages and microphages. Probably the latter arise in the lymphatic organs and the former in the bone marrow. They act by means of special ferments, macrocytase and microcytase, and have somewhat different functions, blood corpuscles, for example, being digested by large phagocytes, and bacteria by the small variety (Chapter IV.).

In connexion with the question of the mechanism of the destruction of red corpuscles Professor Metchnikoff is met with the antagonistic doctrine of humoralism, according to which two chemical substances present in the serum are necessary for the production of hæmolysis. This position he to some extent turns by showing the probability that one at least of these substances, the alexin or complement (cytase), is formed by the leucocytes. There is, however, little or no evidence that the intermediary body (copula, amboceptor, fixative) is also derived from these cells. In Chapter V. are discussed the phenomena of hæmolysis and cytolysis, and in Chapters VI. and VII. immunity against micro-organisms, Professor Metchnikoff maintaining that it is only by the breaking-up of leucocytes—to which he applies the scarcely happy term, phagolysis (phagocytolysis?)—that destruction of bacteria is effected in the serum. Natural immunity depends, according to the author, entirely upon the activity of phagocytes, and acquired immunity (Chapter IX.) is the result of special adaptation of these cells to destroy invaders. The arguments by which these conclusions are enforced are very ingenious, if at times not quite convincing. In subsequent chapters immunity against toxins, the protective action of the skin and mucous membranes, and the various vaccinations in man and animals are discussed. We have not space to follow the argument in detail.

By way of minor criticism we venture to doubt whether the plural of trypanosoma is trypanosomæ. On p. 310 there seems to be some misprint in the following sentence which is unintelligible: "But since *this bactericidal power enters the cytase as a substance destroying the micro-organisms*, and this cytase is contained in the phagocytes, we can readily understand what a dominant part in the process these elements play." (The italics are ours.)

The book is most interesting reading but it is so crammed with facts as to constitute rather stiff mental pabulum. Study of it is indispensable to all who are specially interested in the subject of immunity, but we expect that the general reader will in many cases content himself with the perusal of the historical sketch of the subject given in Chapter XVI. and with the summary in the following chapter. The volume is beautifully printed on good paper and is in every way worthy of its subject.

Les Processus Généraux. Tome Second: Pathologie Générale et Expérimentale. Par A. CHANTEMESSE et W. W. PODWYSSOTSKY. Paris: Masson et Cie. 1905. Pp. 503. Price 22 francs.

THE first volume of this work, which was somewhat smaller than the present, dealt with the natural history of disease, with heredity, and with the different forms of atrophy, of degeneration, of concretions, and of gangrene. The subjects of this, the concluding, volume are comprised under the headings of hypertrophies, regenerations, tumours, the pathology of the vascular system, and the pathology of the blood, of the lymph, and of the lymphatic circulation, while separate chapters are devoted to inflammation, to hyperthermia, to hypothermia, and to fever. Like the former volume the present is freely illustrated and many of the figures are printed in colours which admirably reproduce the appearance of microscopic preparations.

The opening section upon hypertrophic processes is one which will attract general interest; compensatory hypertrophy always affords a fascinating subject of observation and study. According to the authors compensatory hypertrophy only occurs as the result of permanent irritation; thus it follows the removal or functional destruction of one kidney, but it frequently does not arise after the removal of one testicle. The problems of regeneration afford greater difficulty in the human being, where the condition is rarely observed, than in the lower animals, in some of which

considerable mutilation may be followed by the development of fresh structures. The classification of tumours is probably as complete as our present knowledge will permit and it has the advantage of being based upon principles which can be readily grasped. The account of the etiology of tumours, though fairly complete, marks the need of continued research, since it leaves an impression of the weak points in the various hypotheses which have been suggested. The sections devoted to thrombosis, to embolism, and to hæmorrhagic infarct will well repay careful perusal; not only do they accurately present the modern views of the pathological changes which contribute to these conditions but they also supply numerous valuable hints relating to the resulting symptoms.

A very large amount of space is necessarily devoted to the pathology of the blood, the subject being considered under the headings of quantitative variations, qualitative variations, pathological modifications of the leucocytes, and pathological modifications of the red corpuscles. English readers will, we fear, feel that scant justice has been done to the work of English investigators, an impression derived both from the text and from the lengthy bibliography. Concerning inflammation and its etiology there is much that is admirable in this volume; the theory of phagocytosis is considered at length and the various experiments relating to diapedesis receive due attention. After indicating that varieties of inflammation may be classified according to (1) the properties of the exudate, (2) the localisation, and (3) the duration, the authors adopt the first system and fully justify the wisdom of their choice by an extremely instructive and detailed account of much that may be learnt from this division of the facts at their disposal. The concluding chapter upon modifications of the temperature of the body shows that, notwithstanding the amount of study which this subject has received, there is still room for greater precision.

As a work of reference this volume will no doubt be frequently consulted and its utility is enhanced by the lengthy bibliography affixed to each chapter. It must be confessed that it betrays painful evidence of its joint authorship; in some chapters, as in that upon inflammation, the diction is fluent, lucid, and almost colloquial, while in others it is marred by turgidity and inelegancies which are surprising in the French tongue. Further, it may be questioned whether there is any advantage in cumbering the text with long lists of authors who have agreed in the results which they have obtained from some simple experiment. Surely mention in the bibliography would be sufficient, and yet on pp. 387 and 389 we find respectively 25 and 20 names of those responsible for statements of fact which are in no way surprising, and in each case by the insertion of "&c." the authors seem to assure the reader that he ought to be thankful that the list is no longer.

JOURNALS AND MAGAZINES.

Journal of Anatomy and Physiology. Conducted by Sir WILLIAM TURNER, K.C.B., F.R.S., D. J. CUNNINGHAM, F.R.S., G. S. HUNTINGTON, M.D., A. MACALISTER, F.R.S., and J. G. M'KENDRICK, F.R.S. Vol. XL. Series III., Vol. I. With plates and illustrations in the text. London: Charles Griffin and Co. 1905. Pp. 84. Annual subscription, 21s. post free.—With this number the *Journal of Anatomy and Physiology* commences a new series. Sir William Turner has written a preface giving a history of the journal from its commencement in 1863 with a scientific staff of which he is himself the only remaining representative. It now presents a larger page which will enable the editors to reproduce in a more advantageous form drawings and figures required for its illustration. The articles contained in the present part are: 1. The Development of the Hind-brain of the Pig, by O. Charnock Bradley, M.B., D.Sc. Edin. This article is illustrated by 11 plates containing 44 figures. 2. Note on the Elastic Tissue in the Eye of Birds, by E. W. Wace Carlier, M.D. Edin., with two plates. 3. Pigmentation of the Pia Mater, with special reference to the Brain of Modern Egyptians, by William St. C. Symmers, M.B. Aberd. The pigmentation is more marked in the native Egyptians, a light brown race, than in the black races; it seems to have no relation to age, sex, or cause of death. 4. A case of Congenital Atresia of the Pulmonary Artery with Transposition of Viscera; a Second Case of Transposition, by John M'Crae, M.B. Lond. The first case was the fifteenth child of a 46 year old mother; there was a loud systolic murmur. At the necropsy the right lung was bilobed, the left was trilobed; the spleen, the stomach, and the larger part of the liver lay to the right; and the cæcum and the appendix upon the left. The innominate vein coursed from right to left, the innominate artery gave off the left carotid and subclavian, while on the right the vessels came from the aorta separately. Only one great artery, 1·5 centimetres in diameter, was visible in front; four-fifths of the ventricular bulk was taken up by one thick-walled ventricle, the normal left, here situated on the right, and the pulmonic ventricle lay on it as a rounded boss; the auricles which received the veins freely communicated with each other. The ductus arteriosus was patent and supplied the lungs. 5. On the Homology and Morphology of the Popliteus Muscle; a contribution to comparative myology, by Gordon Taylor, M.B., B.Sc. Lond., and W. F. Victor Bonney, M.S., M.D. Lond., with seven figures in the text. They conclude that the superficial portion of the pronator radii teres is homologous in the lower limb with a portion of the gastrocnemius mass; that the deep portion of the pronator radii teres is homologous in the lower limb with the popliteus; that the deep portion of the pronator radii teres and popliteus arose primitively from the head of the ulna and the head of the fibula respectively; that as movement between the tibia and fibula and radius and ulna respectively ceased to exist, the upper region of the popliteus certainly, and the deep portion of the pronator radii teres probably, ascended to the external femoral and internal humeral condyles respectively; that in this upward migration they carried with them certain fibres of the flexor tibialis and flexor radialis respectively; that these fibres exist as the condylo-tibialis and condylo-radialis respectively; that in the lemur, where movement has reappeared between the tibia and fibula, and in man, where it has reappeared between the ulna and radius, the popliteus in the former group and in man the deep portion of the pronator radii teres have descended towards the original attachments; and lastly, that the fibrous arch from which the soleus arises is to be regarded as indicating the original line of the fibular origin of the popliteus. 6. The Facial Expression of Violent Effort, Breathlessness, and Fatigue, by R. Tait M'Kenzie, M.D., with a plate. This is an interesting article. The plate supplies generalised photographs of the expression of the face in violent effort, breathlessness, fatigue, and advanced fatigue. 7. A Case of Absence of the Corpus Callosum, by D. Douglas-Crawford, M.B. Edin., with a plate and three drawings in the text. 8. The Circle of Willis: an Examination of 700 Specimens, by E. Fawcett, M.B. Edin., and J. V. Blachford, M.D. Durh., with 12 figures. 9. An Acardiac Fœtus, by Reginald J. Gladstone, M.D. Aberd., with three plates. 10. The Presence of a Vestigial Sixth Branchial Arch in the Heterodontidæ, by Onèra A. Merrett Hawkes, M.Sc.

West London Medical Journal.—The number of this journal for October opens with an address delivered by Mr. Leonard A. Bidwell on the Progress of Intestinal Surgery, in which among other things are recorded some examples of surgical enterprise in very early days, such as resection of a portion of mortified intestine with subsequent end-to-end anastomosis in 1727, and a device on the principle of Murphy's

button for a similar purpose employed towards the beginning of the nineteenth century. Mr. W. McAdam Eccles deals briefly with Appendicitis in Children and Mr. John Atkins records a case in which Examination of the Blood in a case of Typhoid Fever gave valuable assistance in the diagnosis and treatment of a condition of alarming collapse.

Birmingham Medical Review.—In the September number Professor Robert Saundby's lectures on Medical Ethics are continued and some useful reflections on hospital management, including the question of "paying wards," as well as on "certificates," "insurance reports," and "quacks," are set forth. In a paper on the Therapeutic Action of Glycerophosphates in Combination with Albumens Dr. J. Snowman discusses the value of the artificial food called sanatogen; also of lecithin and of pure glycerophosphates. Two articles dealing with nasal conditions are contributed by Dr. Wilfrid Glegg and Dr. Stanley Barnes respectively, the former relating to the Treatment of Chronic Suppuration in the Ethmoid, and the latter to Septic Meningitis Secondary to Disease of the Nose. Dr. Guy J. Branson reports an instance of apparent improvement in a case of acromegaly, following treatment by combined pituitary and thyroid extracts.

Reports and Analytical Records
FROM
THE LANCET LABORATORY.

ALMO FOOD PREPARATIONS.

(THE ALMO FOOD CO., CRESCENT WORKS, MANOR PARK-ROAD, HARLESDEN, LONDON, N.W.)

THE basis of these preparations is "almo" extract which, according to our analysis, consists of practically pure proteid. It is a yellowish-white crystalline powder, behaving on treatment with chemical reagents much in the same way as does plant vitellin. It is partly soluble in strong solution of sodium chloride but it is precipitated on the addition of hydrochloric acid. Analysis showed it to contain 16·66 per cent. of nitrogen. The moisture amounted to 6·80 per cent. and the mineral matter to 0·60 per cent. "Almo" is stated to be prepared from the ground nut (the almond, we presume) and freed from the bitter principle by mechanical means. It is a very interesting preparation and serves admirably for increasing the proteid constituents of foods. It may also be used in the preparation of a biscuit absolutely free from starch and sugar. The diabetic biscuits which we examined contained over 80 per cent. of proteid in conjunction with butter fat. We have similarly examined biscuits containing, according to our analysis, 28·56 per cent. of proteid, wholemeal bread containing 11·76 per cent. of proteid and bread made from ordinary flour showing on analysis 20·40 per cent. of proteid. The last three excellent foods contain also an augmented amount of potassium phosphate, a natural mineral constituent of wheat flour. The preparations are of decided dietetic interest and value.

OLD MULL BLEND SCOTCH WHISKY.

JOHN HOPKINS AND CO., TOBERMORY, N.B., AND 79, MARK LANE, LONDON, E.C.)

According to analytical examination and the impression gained by the palate this spirit is correctly described as a blend. It consists of a well-matured all-malt spirit combined with a grain spirit of excellent quality. On analysis the following results were obtained: extractives, 0·20 per cent.; mineral matter, *nil;* and alcohol, by weight 41·30 per cent., by volume 48·75 per cent., equal to proof spirit 85·43 per cent. The secondary constituents given in grammes per hectolitre of absolute alcohol present were as follows: volatile acidity reckoned as acetic acid, 21·00; aldehyde, 10·00; furfural, 2·86; ethers reckoned as ethyl acetate, 54·56; and higher alcohols, 120·00: total secondary products, 208·42. These figures connote a blend of malt and grain whisky. The soft and mellow taste of the spirit denotes skill in blending and the selection of matured spirit. The whisky bears no evidence of the presence of objectionable impurities or acrid constituents.

CASTOR-OIL POWDER.

(RUDOLPH DEMUTH, 61, MARK-LANE, LONDON, E.C.)

IT is somewhat remarkable that castor oil can be successfully reduced (combined, of course, with another substance) to the form of a light powder containing as much as 50 per cent. of the pure oil. The powder is quite dry, in fact almost dusty. The greatest merit about it, however, is that it is practically tasteless, or at least that it is quite free from the flavour which makes castor oil nauseous. The powder mixes well with porridge, milk, or other liquids and in this form children will take it readily. It is, however, necessary to mix the powder with a small quantity of the liquid to be used until it forms a paste, after which more liquid may be added. Castor oil is admittedly one of the most valuable aperient medicines, the chief drawback to its use being its nauseating flavour. This drawback has been successfully overcome in this powder which has been prepared in a special way, using magnesia as, so to speak, an excipient.

OXYGEN BATHS.

(THE ROBORAT CO., 27A, ST. MARY-AT-HILL, LONDON, E.C.)

The production of oxygen first *in statu nascendi* and finally in the free state in myriads of small bubbles in the water of a bath is calculated to have the same effects upon a patient immersed as when an artificial Nauheim bath is used in which carbonic acid is evolved, since the therapeutic effect of the latter is probably due not to the chemical nature of the gas but to its physical or mechanical action in stimulating the skin. The effervescing bath has, in fact, been aptly described as the "gas brush." The effect is undoubtedly more advantageous when the gas is evolved in the water. For the preparation of an oxygen bath the use of two tablets containing certain substances which interacting upon each other form oxygen is convenient and effectual. The substances used are sodium perborate, described as the oxygenator, and manganese peroxide, the catalysator. It is obvious that one great advantage of employing these agents is that they can have no harmful action upon the skin or injurious effect upon the bath. The evolution of oxygen proceeds steadily and uniformly during the immersion of the patient. If desired the treatment may be amplified by the use of pine extract and other agents. The indications are much the same as in the case of the Nauheim baths.

LYNNICO SOAP.

(THE LYNNICO TOILET CO., 18, GREEN-STREET, LEICESTER-SQUARE, LONDON, W.)

This soap is of excellent quality and is free from irritants. It is, moreover, economical in use since it contains a minimum of moisture and further tests show that it contains no free alkali. The purity of soap is, of course, of importance when delicate skins are concerned and we can well believe that this soap would be of advantage in such cases.

THE NEW NAVY TOBACCO.

(F. V. CHALMERS, 13, DEVONSHIRE-SQUARE, BISHOPSGATE, LONDON, E.C.)

The Admiralty authorities have recently decided to supply to the sailors cut tobacco which will do away with much trouble and waste incident to the use of plug tobacco. We have received two specimens of this tobacco, one being cut coarse and the other fine; the former is somewhat full flavoured while the latter is mild and may be used in cigarettes. Both are quite cool in smoking and give an agreeable and aromatic smoke. These specimens are made

up with the same tobacco as has been hitherto used, but it is blended with leaf obtained from Havana seed grown in the West Indies. The peculiar and agreeable aroma is due chiefly to the latter leaf.

MAGGI'S CROSS STAR SOUPS.

(COSENZA AND CO., 95, WIGMORE-STREET, LONDON, W.)

These soup tablets only need to be known to be appreciated. They are evidently prepared with care and the ingredients are well chosen. The tablets afford a very convenient means of preparing rapidly a palatable and really nutritious soup. Amongst those which we examined were "bonne femme," "petites pâtes," "semoule," "tapioca crécy," "orge," and "St. Germain."

CYLLIN PASTILLES.

(JEYES' SANITARY COMPOUNDS CO., LIMITED, 64, CANNON-STREET, LONDON, E.C.)

The bacteriological efficiency of cyllin is well known and no better bactericide could be employed in the form of a pastille for the antiseptic treatment of the mouth. Each pastille contains one-tenth of a minim of pure cyllin associated with liquorice and tolu balsam. Incidentally we may add that cyllin disinfectant has been tested by Dr. Klein in the case of a vigorous culture of glanders with the result, it is stated, that cyllin is 15 times more efficient than carbolic acid in destroying the bacillus mallei.

MEDICATED SOAPS (OWL BRAND).

(C. J. HEWLETT AND SON, 35-42, CHARLOTTE-STREET, LONDON, E.C.)

We have carefully examined these soaps and find that they give quite satisfactory results. The soap basis is of excellent quality and as our tests prove contains no free alkali but, on the contrary, a slight excess of pure fat. Moreover, the soaps are economical in use containing a minimum of water. They are therefore well adapted for delicate skins, while with the addition of certain medicaments such as thymol, carbolic acid, coal tar, sulphur, ichthyol, &c., they are of value in dermatological practice.

MOSELEYS COCOA.

(FOODS, LIMITED, STOCKPORT.)

This cocoa contains the essential elements of a complete diet, proteid, carbohydrate, fat, and besides possesses mild stimulating qualities owing to the theobromine of the cocoa. The amount of fat proved to be 22 per cent., which is derived in part from the cocoa and in part from the cereal of the food. We may add that the food with which the cocoa is mixed is prepared in such a way as to render its constituents easily soluble and digestible. The cocoa is of good quality.

VEGETALINE.

(ROCCA, TASSY, AND DE ROUX, MARSEILLES; AND MR. F. BOEHM, 16, JEWRY-STREET, LONDON, E.C.)

This consists of a very pure and refined cocoanut fat which affords an excellent and wholesome substitute for butter, chiefly for cooking purposes. It has the decided advantage of keeping free from oxidation products; in a word, it does not become rancid. It is beautifully white and practically tasteless. The melting point is 81° F. and the fat is practically free from moisture and mineral matter.

New Inventions.

AN IMPROVED PINCE-NEZ.

For many reasons some persons who are unfortunately compelled to wear "glasses" have a preference for the form of spectacle frame known by the name of pince-nez. This form of spectacle frame, however, possesses some disadvantages, especially in cases of astigmatism, unless special means are provided for keeping the lenses in all directions equally inclined to the line of vision. In all the forms used for this purpose there is a more or less rigid cross-bar joining the two lens frames but it does not always fulfil its intended purpose and in some patterns there is a constant liability of breakage. Messrs. G. C. Bateman of King-street, Reading, have sent us for trial an improved frame which seems to possess some advantages over the old form of parallel sliding-bar pince-nez. The improvement consists in joining each "plaquet" to the opposite end of the top bars by means of a curved stay-rod, the two curved rods crossing each other above the nose of the wearer and below the top bars. The effect of this is to hold each "plaquet" firmly against the nose and at the same time to lessen the amount of strain on the top bars. The invention, which is neat in appearance, can be applied to any of the forms of sliding-bar frames at present in use. If a prolonged test confirms the good opinion which we have formed of this new invention by a short trial a distinct step has been made towards producing a satisfactory form of spectacle frame which many persons find desirable.

Looking Back.

FROM

THE LANCET, *SATURDAY*, Nov. 3rd, 1827.

The habits of the times, according to Dr. Uwins,[1] seem to sanction three distinct species of medical writing. The erudite and technical, and exclusively calling upon professional readers; a second, the contrast to this, avowing its design to "make every man his own physician;" or, in other words, the quackery tribe of medical books; whilst the third set is only so far professional, as to be readable by the profession, and so far popular as to be interesting to the man of general science. We shall concede to the Doctor the privilege of making the division, at the same time that we admit his undoubted right to rank his own lucubrations, with whichsoever of the three he pleases. He selects the third, first, because it "has no loftiness of pretension," next, because it is "neither professional nor quackical," but both. So says the author, so say we.

If the author had confined himself to the writing of a medico-empirical melange, we probably should have allowed his work to pass silently to its doom, and leave it unnoticed and unknown; but when we find him pertinaciously continuing to discuss in the different tracts which he puts forth from time to time, some most important question of medical ethics, and still reiterating the same absurdities, we cannot avoid noticing, and, at the same time, exposing them.

The author appears partial to divisions and definitions—though neither in the one nor the other does he evince much of a logical turn. Having disposed of medical writings, as seemed fit to him, he very naturally turns to medical men, and divides them also into classes; the physician, the surgeon, the general practitioner, and the *referee* practitioner. With the last we had no previous acquaintance, and, therefore, must take them on the Doctor's authority, as most probably he is, or would be, one of that class. After the division comes a definition, or something like it, in the following passage, in which a line of distinction is sought to be drawn between medicine and surgery:—

"To medicine belong philosophical acumen, a promptness of drawing correct inferences, from occasionally doubtful premises, a large grasp of mind, and comprehensive attainment. Surgery requires cleverness, and tact, and mechanical dexterity, and minute anatomical knowledge. I will not say of our friends, the surgeons, when they meddle with medicine, what was once said of the city orators in the British senate, that 'they make sad work of it;' but I will say, that important as anatomical knowledge, natural and morbid, is to us all, something more is required than a familiarity with 'the blood and filth of the dissecting-room,' to form the mind, and regulate the habits, and give character to the decisions of the qualified and real physician."*

* "I am aware that the charge above made on surgery only partially applies; and even where it does so, it is against the principles rather than the persons that I would direct my strictures; almost, perhaps, before the ink is dry with which I pen the present page, I may shake hands in cordial friendship with one or more eminent surgeons, whom I would and do refuse to meet in sick rooms, although *they* would readily obey the call to *medical* consultation."

[1] Excerpt from a lengthy review of "*A Treatise on those Diseases which are either directly or indirectly connected with Indigestion: comprising a Commentary on the Principal Ailments of Children.* By DAVID UWINS, M.D., &c. 1827. 8vo, pp. 234. Underwoods."

THE LANCET.

LONDON: SATURDAY, NOVEMBER 4, 1905.

Sir Frederick Treves on the Army Medical Service.

SIR FREDERICK TREVES gave a thoroughly interesting and instructive address on the Army Medical Service at a largely attended meeting of the Brighton and Sussex Medico-Chirurgical Society last week and we have no doubt that his words, as reported in the press, have been widely read, not only by medical officers of the services and members of the medical profession, but also by the public who can in this instance well understand how closely general interests and professional interests are allied. It is very desirable that information in regard to this subject should be much more widely diffused than it is. The condition of the Army Medical Service concerns everybody, for there are but few families, rich or poor, which have not some relative or friend connected with the army. Sir FREDERICK TREVES, as a member of the Advisory Board, can speak with authority, he knows the subject with which he is dealing from the official point of view, but what is far more valuable he has had personal experience of the requirements of a medical service in modern war, while his knowledge of civilian hospital and medical life is necessarily very intimate.

The British nation does not strive, and never has striven, sufficiently in times of peace to attain the highest practicable efficiency in war, though it is a truism, so old that it has become a platitude to repeat it, that everything depends on a state of preparedness in the former for success in the latter. No branch of the army has suffered more than the Army Medical Service from the perpetual procrastination of those at the head of affairs. Sir FREDERICK TREVES began his address by referring to the violent attack upon the Army Medical Service which took place during the war in South Africa. He briefly explained the then existing conditions and spoke in vindication of "a very deserving body of men who were doing their best and attempting to carry out the almost impossible task of making bricks without straw." The popular outcry, though unjustified, did good in that it led to the appointment of a commission of inquiry—this was in July, 1900. This Commission recommended that a committee of experts should be formed to advise the Government upon the question of the reorganisation of the whole service. That there was a great deal urgently calling for reform and redress at that time cannot be doubted and the main purpose of Sir FREDERICK TREVES's recent address was to tell his audience what has happened since and what still remains to be done. He pointed out that all the recommendations of that Commission have been, or were being, acted upon with the exception that a better type of ambulance had not yet been provided, and our readers may like to turn back to the pages of THE LANCET, where this information is given in full.[1] We are glad to notice that Sir FREDERICK TREVES alluded in deservedly eulogistic terms to the services rendered by Mr. BRODRICK and to the indebtedness of the Army Medical Service to him. But the War Office policy, so far as the Army Medical Service is concerned, seems to be one of doing and undoing, for what Mr. BRODRICK wisely did by putting the representative of the medical service in a proper official position at the War Office Mr. ARNOLD-FORSTER, his successor in office, has since undone. There is no need for us to follow here Sir FREDERICK TREVES in his recital of all the changes and improvements that have since taken place, seeing that they have been already chronicled in our pages. The general result is that, in his opinion, the British Army Medical Service is now second to no analogous service in the world, possessing a corps of highly qualified and efficient medical officers and being equipped with every modern requirement.

We are entirely in accord with Sir FREDERICK TREVES in the spirit and nature of his remarks regarding the medical service of the army as a professional department. "The chief change," says Sir FREDERICK TREVES, "in the status of the army doctor was this—his advancement was by professional merit. It was a professional corps. A man entered the corps not as a soldier but as a doctor, and as a doctor he advanced." No words could better describe the change which we all hope has taken place in the spirit of the corps since advancement came to depend upon personal professional merit. It is absolutely necessary, of course, in a military organisation to secure that medical officers, as a most important and integral part of the army, should have the military rank and position to which they are entitled, but this military rank is a mere addition to professional rank and status. Our view has always been that it was more especially as a scientific branch of the army—like the Royal Engineers, for example—that the Army Medical Service could most worthily take its stand, and that, if only in the interest of the State, ample opportunity and encouragement should be provided for the progressive improvement and development of its officers in scientific and professional knowledge. The door has at last been opened, we are glad to say, to professional merit and a medical officer is now the master of his fate in a way and to an extent that have never before been the case. We regard the establishment of an Army Medical College in London, which is among the most striking alterations made in the service, as a very important step. Moreover, the mere moving of the surgeon on probation from Netley to London has other advantages. In addition to the special information to be acquired inside the walls of the Army Medical College medical officers have also an opportunity of availing themselves of what is going on outside and of becoming more closely associated with the civil side of their profession.

But, after all, the skill of the best surgeon or physician counts for very little in a big war compared with the good that can be done by a sound and effective system of sanitary and medical administration. Mr. BRODRICK, on his quitting office, had placed the Director-General of the department in a position at

[1] THE LANCET, March 9th, 1901, p. 734, and Sept. 9th, 1905, p. 773.

the War Office where his counsel and representations would have insured due attention and respect and where he could have been of real use to the army at large. But this, as it seems to us, is no longer to be the case; the Director-General and the Army Medical Service are henceforth to form one of a group of departments under the adjutant-general, and instead of being a member of the War Council the Director-General is to be summoned "whenever his advice and special knowledge are required"—a very different and altogether subordinate position to that proposed to be accorded to him by Mr. ARNOLD-FORSTER'S predecessor in office. We have already called attention to this point more than once and we are surprised that its significance continues to escape attention. Sir FREDERICK TREVES has brought into prominent notice the various points which appeared to him to be still needed to make the Army Medical Service as good and efficient as it might be, and we hope that the War Office authorities and all concerned will weigh carefully what he has said. He spoke optimistically and out of full knowledge, and the counsels of such an adviser should be respected.

Some Considerations on the Operation for Cleft Palate.

FROM the wide prevalence of congenital harelip and cleft palate among all branches of the human family, and from its occurrence even in many of the lower animals, we are justified in thinking that this arrest of the development of the face must have occurred from the time of the first appearance of man on the earth. Yet, strange to say, we are able to find only scanty references to the deformities until nearly modern times. Speculations as to the etiology of this condition have been long rife and the popular mind has almost universally agreed that "maternal impressions" are responsible for most of the instances of its occurrence. Vivid dreams, frights, and woundings are all credited with the production of this maldevelopment and though medicine for the most part has discarded these explanations we must confess that modern science has no satisfactory reasons to offer in their stead. We cannot doubt that surgeons have seen and examined cases of harelip and cleft palate from the time when surgery first arose but we can find no trace of any attempt having been made to rectify the abnormality until the seventeenth century and the treatment then was limited to closing the cleft in the lip. In these cheiloplastic operations, however, the progress of knowledge and the widening of experience have led to results which are all that can be wished and it may be said that at the present time all surgeons are agreed as to the main principles governing the operation of closing a harelip and hardly any can be found to advocate the postponement of the operation beyond the second year of life.

The unanimity which exists as to the method of treatment of harelip is not to be found amongst surgeons in the treatment of congenital cleft of the palate. It was long after the first attempts at operations on harelip before a surgeon was found daring enough to essay the closure of a cleft palate and for a long time these attempts were confined to clefts of the velum palati in which the separation of the two halves was but slight. The credit of establishing the operation for cleft of the soft palate must be given to ROUX. For a long time it was considered advisable to postpone this operation until the patient was of an age to appreciate the importance of what was done and sufficiently intelligent to co-operate with the surgeon not only in the operation itself but also in the after-treatment. This was the course pursued by the surgeon as a routine not only in the time before the introduction of anæsthetics but after, for even when ether or chloroform was used for all other operations it was considered advisable to forego the advantages of anæsthesia in operations for cleft palate, partly in order to obtain the assistance of the patient and partly from a fear that asphyxia might result from some of the blood (and the hæmorrhage is often profuse) finding its way into the air passages. Closure of clefts of the hard palate was not attempted for many years after staphylorrhaphy had become a frequent operation. WARREN of Boston was the introducer of this advance which took place in 1843; he raised the muco-periosteum from the palate bones on each side and brought them together in the middle line. In 1869 the next great step of progress was made. Sir THOMAS SMITH showed that the risk of asphyxia from hæmorrhage had been much exaggerated if reasonable care were taken and that therefore it was justifiable to administer anæsthestics for the operation. By means of a cleverly contrived gag Sir THOMAS SMITH was able to fix the jaws and tongue so that the willing and intelligent assistance of the patient was not required. The administration of an anæsthetic in such cases at once became a great boon to both patient and surgeon and since that time some form of anæsthetic has always been employed in the operation of closing a cleft of either the hard or the soft palate.

There has been on the whole a tendency towards the performance of these operations at an earlier age than formerly but the question of the best age at which staphylorrhaphy and uranoplasty should be done is now the most keenly discussed of any connected with the subject and recently the matter has received attention in many directions. Mr. W. ARBUTHNOT LANE has published a work on cleft palate and harelip in which he has given a *résumé* of many papers which he has written at various times.[1] Mr. LANE is the chief advocate of the very early performance of the operation for harelip and cleft palate. The arguments in favour of an early operation are these: the abnormality is an arrest in development and therefore the sooner the parts are placed in their natural positions the more likely is development to proceed along normal lines. Moreover, if the palate is reconstituted before any attempts at speaking are made it is highly probable that the voice will possess none of those qualities which are connoted by the word "nasal." The majority of surgeons, however, both in this country and elsewhere, are opposed to very early operations and they advance in support of their opinions the following arguments: the risk of sepsis at a very early age is greater, the tissues are more liable to slough and are more lacerable than later, and they say that the older children are more easily kept quiet after the operation and that the voice differs but little from the normal if the cleft is closed

[1] Cleft Palate and Harelip, London Medical Publishing Company, 1905.

before the fourth or fifth year. Who can decide? From a theoretical point of view no one, we think, will venture to deny that the earlier operation would be desirable, as rendering it possible for the child to develop along normal lines, provided always that the risk of the operation itself is not appreciably increased and that the structural results are equal to those obtained in older children. But these are exactly the two main propositions put forward by Mr. LANE which are denied by those who oppose his method. The surgeons who favour some delay in undertaking these operations say, as we have already mentioned, that at the early age advised by Mr. LANE—that is, within the first six months of life—the tissues are very lacerable and slough readily and that the risk to life is by no means small, while with the later operation the results are quite as good, if not better, and there is no real danger to life. We do not take upon ourselves definitely to decide who is right in this important matter; indeed, time alone can show which view is the sound one, but we are inclined to think that the origin of the differences of opinion is mainly to be found in the tendencies of the operation. From the first inception of staphylorrhaphy to the present time the well-marked tendency has been to attempt the closure of these maldevelopments at an earlier age than before. It may well be that the ideal age is not necessarily to be found in the first few months of life; yet when we consider that the sooner the cleft is closed the more readily will development approach to the development of a normal child we cannot deny that the argument in favour of the early operation is very strong. The danger of sepsis, of sloughing of the flap, and of impairment of the general health of the child cannot be ignored, but the improvements of modern aseptic processes will go far to counteract any depressing influence of the operation. The individual skill of the surgeon is also a factor which cannot be ignored. Bearing in mind all the considerations we cannot but feel that if due care be exercised the early operation need give rise to little increase of danger. This being so the advantages of a restoration of the continuity of the parts before any attempts at speech are made are very great and go far to outweigh the possible slight increase of risk.

The Evidence of Time in Favour of the Antitoxin Treatment of Diphtheria.

IN the opinion of almost all those who have studied the question apart from preconceived bias the treatment of diphtheria by antitoxin has passed beyond the stage of doubt as to its efficacy to the position of an established and approved therapeutic method. Voices from among the medical profession in this country or abroad raised against it are few and far between and attract little attention. That this attitude of confidence is justifiable can scarcely be doubted but it is possible to arrive at true conclusions on false premisses and the opponents of all treatment by serums or preparations derived from living animals endeavour from time to time to cast doubt upon the value of antitoxin by challenging the arguments which are sometimes brought forward to support it, just as they endeavoured to combat the use of vaccination against small-pox by enlarging upon the error formerly committed by some of its supporters in maintaining that the protection conferred by one inoculation lasted unimpaired throughout life. It may be well, therefore, to consider the grounds of our confident belief in the efficacy of diphtheritic antitoxin. We may at once admit that it is practically impossible to judge of the efficacy of any remedy in individual cases, since surprising improvement may at any time occur in any sick person quite apart from the treatment adopted, and the tendency to ascribe such improvement to the last remedy employed, on the principle of *post hoc ergo propter hoc*, is universally recognised to be erroneous. It is only by comparing large numbers of cases treated according to one method with an equal number treated without the remedy under consideration that any weighty deduction can be made. In the case of antitoxin such statistics are available: we can without difficulty compare the fatality of diphtheria before and after the introduction of serum treatment.

Some figures bearing on this question have recently been collected by Dr. H. E. ARMSTRONG, medical officer of health of Newcastle-on-Tyne. He shows that in the hospitals of the Metropolitan Asylums Board the average annual mortality during the years 1888-93, before the introduction of antitoxin, was 37·3 per cent., whereas during the period 1894-1904, after the introduction of antitoxin, the percentage mortality fell to 15·8. Meanwhile, in the large towns the mean death-rate per cent. of cases fell from over 30 in 1894 to 18 in 1904. These figures are sufficiently striking but they cannot be accepted without scrutiny as affording an incontrovertible argument for the efficacy of the treatment by serum. We have to bear in mind, on the one hand, that epidemic diseases tend to exhibit variations of virulence when they are studied over periods of several years, so that a fall in the fatality cannot be at once attributed to any new remedy which has been introduced; and, on the other hand, that we have practically revolutionised our methods of diagnosis of diphtheria. In times gone by the disease was recognised mainly by the presence of false membrane on the fauces, especially if this occurred together with severe constitutional symptoms. At the present day a diagnosis is made almost entirely upon bacteriological evidence, the presence or absence of the characteristic bacillus being taken as the criterion whether we are in the presence of diphtheria or of a simple pharyngitis or tonsillitis. As a result of this change of view cases of mild sore-throat are now classed as diphtheria—cases which would in any case recover whatever the treatment; and the fatality of diphtheria will be reduced accordingly. The argument in favour of treatment by antitoxin drawn from such statistics is thus considerably weakened. Indeed, the increased prevalence of diphtheria which has been observed in recent years has been urged as an objection to the use of this remedy, and has even, if we remember rightly, been itself attributed to it. The explanation of the increase lies in the enlarged application of the name diphtheria rather than in a true extension of the disease, though it is possible that owing to the more rigorous application of

the laws governing attendance of children at school increased facilities of infection are provided. Dr. ARMSTRONG, however, points out that the increase in the number of cases of diphtheria is due to isolated epidemics in certain large towns rather than to a general increase all over the country. If, then, observation of individual cases is inadequate to prove the value of a remedy, while the figures derived from statistics may be to some extent fallacious, what grounds have we for speaking confidently as to the therapeutic value of antitoxic serum? The evidence is afforded by the data available as to the rising mortality of the disease according as cases are treated on the first, second, or following days after its onset. The inference derived from these is clear and beyond cavil. We find that among cases treated with antitoxin at the Brook Hospital on the first day of the disease at its very onset the mortality for the six years 1897–1902 was *nil*. Among those treated on the second day the mortality was under 5 per cent.; among those treated on the third day it was over 10 per cent.; while among those in which treatment was delayed to the fourth and later days the percentage rose to about 20 per cent. It is impossible satisfactorily to explain this increasing mortality on any other ground than on the assumption that the administration of antitoxin is the controlling factor in saving life. Of the inadequacy of ordinary remedial measures, such as preparations of iron taken internally and local antiseptic applications to the throat, we are only too painfully aware. But in order that the antitoxin may be enabled to exert its beneficent action it must be administered before the poison of the disease has had time to obtain a firm grip of the living cells. If the remedy is given at the very outset the poison is neutralised before it can do serious harm and recovery of the patient is practically certain. Later, larger doses of serum are necessary to overcome the toxin and even then we cannot be sure of a successful result.

A word of warning is perhaps necessary in advocating the use of antitoxic serum in cases of diphtheria. There is undoubtedly a tendency at the present time to administer doses of this remedy very much larger than was customary a few years ago. In many cases this proceeding is necessary to save the life of a patient already deeply intoxicated with the diphtherial poison. Here it is essential to act quickly and vigorously. But we must bear in mind that antitoxic serum, or indeed any serum derived from one of the lower animals, is not an inert substance. It is capable of giving rise in susceptible persons to constitutional disturbances which are sometimes severe and may possibly at times be even fatal. Just as in employing a poisonous drug as the physiological antidote to a poison we are careful not to produce another form of intoxication, so in treating diphtheria we must graduate the dose of antitoxin employed to the needs of the individual case. It is unfortunate that the requisite dose cannot be accurately measured but it should be recognised that in cases of moderate severity only moderate doses of serum should be at first employed. To repeat the injection in a few hours' time is easy; to withdraw what is once administered is impossible. Only in the presence of grave toxæmia should massive doses be at once employed. Then haste is imperative and some risk may be run to combat the greater danger already present.

Annotations.

"Ne quid nimis."

THE BRITISH SCIENCE GUILD.

THE British Science Guild commenced its commendable labours under very favourable auspices at the Mansion House on Oct. 30th, when the Lord Mayor presided at the inaugural meeting which was convened in part to ratify the names of those proposed to serve as officers and in part to give the leading organisers an opportunity of stating the objects of the guild and of emphasising the great need for the existence of such an association in this country. Primarily the guild seeks to awaken the nation to its sense of responsibility in regard to the development of education and the application of scientific knowledge to all branches of human industry. To that end the members of the guild throughout the Empire propose to meet together and to act in concert in organising a movement which is designed to bring home to the people the necessity of applying the methods of science to the industrial affairs of life and thereby to promote the progress and welfare of the Empire. Further, the members of the guild will act by bringing to the notice of the Government the scientific aspects of all matters affecting the national welfare, by encouraging the application of scientific principles to industrial and general purposes, and by promoting scientific education and for that purpose enlisting the support of the universities and other institutions in which science is an ever-widening field of study and where new scientific applications are made. Science for all and not for the few is, in brief, the ambition of the guild, and by science is meant not the mere knowledge of scientific principles and facts but a training which implies the gaining of an insight into the meaning of these facts and a quickened sense of observation which is calculated to realise how a knowledge of these facts and principles may be turned to practical account. The practical study of science even by the few has developed into so many branches and has opened up so many fields that the only chance of making real progress in the future will be by increasing the number not of mere learners but of actual workers. But even so progress must necessarily be slow, for probably it will be a long time before scientific investigation will afford a compensating vocation and become the source of a living wage. Still a really serious beginning in this direction must be made and the sooner the better for the welfare of the country, as undoubtedly while it is true that the Englishman is second to none as a brilliant explorer and discoverer it is a fact that he has oftentimes failed to realise the significance of his discovery in its application to industry and that therefore what might have been a valuable asset to his country has slipped away. Once, however, the need of scientific application is felt there will be rapidly increasing vacancies in industrial pursuits calling for the energies and skill of men versed in scientific principles and alive to the value of their application. If such a consummation ever be gained in this country, and there can be no real advance until it is gained, it may be justly the proud boast of the recently organised guild that at any rate it contributed its quota towards the attainment of so desirable an end.

A BY-LAW AGAINST STREET NOISES.

THE Islington borough council has recently obtained the sanction of the Home Secretary for a by-law which includes the following provision: "No person shall sound or play upon any musical or noisy instrument or sing in any street or public place within 100 yards of any hospital, infirmary,

or convalescent home to the annoyance of any inmate thereof after being requested to desist by any inmate or official, either personally or through any person acting on behalf of such inmate or official or through a constable." Similar protection is also given to places of religious worship or of public entertainment and the shouting of hawkers and street-sellers is also forbidden when it is done "so as to cause annoyance to the inhabitants of the neighbourhood." It is to be feared that this otherwise excellent by-law will not be enforced by the police upon general instructions but will have to be set in motion by the "inmate or official" invoking the constable's aid upon specific occasions. This, at least, is the apparent force of the condition, that the noise must be made "to the annoyance of any inmate thereof" before it can be stopped. Possibly, however, the police may take a more liberal view. In the regulations as we have seen them quoted there is no mention of the unfortunate individual who lies ill in his home in a room which may be much nearer to the players of street music than the ward of the hospital. As the band may be asked to stop by any "inmate" of the latter or by anyone on his behalf there would not seem to be any great injustice in permitting the inmate of any house to make a similar request if the noise caused annoyance to a person lying seriously ill. As it is, the immediate vicinity of a hospital or infirmary should be popular as a place of residence among Islington citizens who wish to avoid the "music" of the piano organ, the street cornet, and the itinerant band.

THE REVOLUTION IN RUSSIA AND THE MEDICAL PROFESSION.

IN the complete political and social upheaval now taking place in Russia medical men have had a difficult part to play and the fact that they are represented as working sincerely now on the side of the autocracy now on the side of the revolutionary party shows this to be the case. As the guardians of the public health medical men are naturally deeply concerned in the preservation of law and order, for with mob government there comes the suspension of all the domestic machinery devised for the safeguarding of life and the preservation of health. On the other hand, as members of an enlightened profession no class in Russia can have seen more clearly than the medical men that the Government of a vast country by one man at the completely unfettered instigation of any group of men with whom he may choose to surround himself is a monstrous anomaly. At a general meeting of the League of Medical Men, St. Petersburg, on Oct. 23rd, the subjects discussed included the three following: (1) proposed adhesion to the recently formed league to combat capital punishment; (2) a general strike of medical men; and (3) the relations of the medical profession to the Imperial Duma. The opinions of the meeting on the third point are no longer of interest as no one cares further about the Duma but as to the first it was decided to cease professional relations with any medical man who should in any way contribute to the carrying out of capital punishment, an exercise of the boycott which is clearly dictated by a strong turning towards humanitarianism. As to the second, after a long debate, during which many present had advocated partial boycott of selected persons and institutions, it was decided to favour a general strike in sympathy with the revolutionary movement. A curious comment upon the existing legislation in Russia as it affects medical men is furnished by the position of Professor Behrend who has recently been summoned to St. Petersburg by an old patient whom he had attended already in Berlin. Notwithstanding the tempting character of the invitation, says the *Novosti*, with apparent reference to the fee offered, the professor replied that although the St. Petersburg police would probably allow him as a professor in a German university to reside in St. Petersburg without trouble, they might have the right to send him out of the capital as a Jew, and not wishing to subject himself to the latter possibility he refused to go until the situation was changed.

VENTILATION IN THE ROYAL COURTS OF JUSTICE.

SOME strictures recently made by one of our judges on the ventilation of his court in the central legal palace emphasise the difficulty of the problem presented to an engineer upon whom devolves the task of ventilating any large public building. In the case of the Law Courts, consisting as they do of an agglomeration of separate chambers, each presided over by an autocrat holding arbitrary as well as possibly distinct views as to temperature and ventilation from his brother in the adjoining court, the engineer's lot can scarcely be described as a happy one. But as without doubt the condition of the air in the courts has a serious, if indirect, bearing on the administration of justice the point is quite important. A few facts as to the provision for ventilation made in the Royal Courts of Justice in the Strand, where so much of the legal work of the country is done, will not be devoid of interest to our readers. Probably few medical men and very few of the general public, or those whose duty requires their attendance at the courts, have any idea of the elaborate machinery provided for the purpose in Street's well-abused building. Ventilation without draught has been the aim of generations of engineers, but as yet their best efforts have met with only partial success. Unfortunately the engineer seldom arrives upon the scene of his labours until after the architect has completed his structural work. This is to be regretted, as there are many details in the construction of a building which influence for good or evil any scheme of ventilation. In the crypt beneath the labyrinth of corridors and courts composing the building in the Strand exists an accumulation of machinery absolutely bewildering to anyone devoid of the technical knowledge appertaining to an engineer. In the first place, there are the steam engines with their furnaces and boilers, which alone occupy a considerable space. These work the dynamos for generating the electric power to drive the fans used for extracting the vitiated air and for forcing the fresh air to the several courts. These fans, which number 21, are capable of passing through the courts many thousand cubic feet of air per hour. This at first would seem very satisfactory but as to whether they are capable of maintaining the purity of the air at the standard required by modern science we cannot offer an opinion without having the necessary figures. When it is remembered that each person, in theory at least, requires 1000 cubic feet of air space, and that it is necessary to change this air three times in the hour in order that the recognised limit of carbonic acid (CO_2) present shall not exceed 0·6 per 1000, it seems not improbable that even this large supply may fall short of the amount required. This, of course, not only depends upon the size of the court and the number of people present but also upon the amount of air admitted by doors and windows, and whether it is possible to drive the fans at their full limit without creating an unbearable draught. Except in the case of very large buildings, which permit of a rapid diffusion of air in the space between the inlet and outlet, it is found difficult to admit air, even when the temperature has been artificially raised, at a rate per hour much exceeding three times the volume present without causing too great a draught. The supply of air in the present instance can either be heated or cooled before delivery. For the former purpose there are two calorifiers in which the circulating coils are heated by the exhaust steam from the engines; the hot water in the

coils then circulates through the various radiators throughout the building. In addition to the circulation of the water by gravity there are two powerful steam-driven force pumps connected to this hot-water circulating system that accelerate the flow of the water through the radiators. It is by a series of coils in connexion with this hot-water system that the fresh air is heated in its passage to the Tobin's ventilators fixed in the courts and through which it is pumped at high pressure. In connexion with this arrangement is a particularly interesting piece of mechanism—viz., a separate vacuum engine for extracting the moisture from the steam as it leaves the exhaust in its passage to the calorifiers. The air before delivery into the Tobin's tubes is washed in a spray and filtered; additional screens are in contemplation further to facilitate this process of cleansing or cooling. For the purpose of cooling the air in very hot weather there is a complete freezing plant which keeps the water used for washing the air at a temperature of about 40° F. The dynamos that drive the fans yield a pressure of 110 volts 650 ampères, the current required when all the fans are in work being 350 ampères. There is also working in connexion with the dynamos a "booster" and motor for charging the 60 accumulators stored in a separate building, each of which weighs 15 cwts. These accumulators also form a reserve for supplying the electric light in the event of any temporary failure of the current from the mains of the company which supply the ordinary service. There are two chambers devoted to the control of the electrical apparatus—one for the lighting and the other for regulating the current to the several fans, accumulators, and machinery in connexion with them. On large white marble screens running the length of these apartments are fixed an array of complicated switches, fuses, gauges, and testing apparatus enough to awe and to mystify the uninitiated, rendering any notice requesting visitors "Not to touch" quite unnecessary. Considering the number of the courts, the ever varying number of those present, the constant opening and shutting of the doors, and the changes of external temperature, it is small wonder that judges occasionally complain or that engineers are at their wit's end for a remedy.

THE "CORKING" OF WINE.

THERE seems to be very little doubt, as was pointed out in an annotation in THE LANCET of July 11th, 1903 (p. 115), that the defective quality of a cork which produces sooner or later a "corked" wine is due to biological agencies and not to a merely structural failure. Some indication of this being the case is given in those examples of wines which do not "cork," such as sherry and certain white wines which are rich in aromatic or other substances which being antiseptic prevent biological development. The sterilisation of corks is thus suggested as a solution of the difficulty but this is not easy to accomplish completely owing to the impermeability of cork—its essential quality. Recently, however, according to a communication published in the *Times* of Oct. 30th, a way has been found of sterilising corks completely by means of formic aldehyde, which apparently has the power of penetrating the pores of the cork. The method is simple and its discoverer, M. E. Pozzi-Escot, in a paper read before the French Academy of Sciences, directs that the corks should be placed in a vessel containing formalin diluted with five times its volume of water and that the liquid should be gently boiled. A cover is placed on the top of the vessel so as to keep the vapours in a concentrated state in contact with the floating corks. The process should be conducted slowly. The corks are said to be not only sterilised but improved in regard to their sealing quality and certain constituents of the cork are, it is alleged, so toughened as to resist the solvent action of the wine. Thus a good bottle of wine may be saved from becoming "corked" and it is said that corks so treated have no injurious effect upon the flavour of the wine. Of course, an experiment of this character needs the test of time before we can say definitely that the method is a success and it should be remembered that some wines are more susceptible than others to any injurious influences which may exist in the cork. Very few elegant clarets will stand rough treatment and formaldehyde in the cork sounds like the death-knell of, say, an exquisite Lafite, but doubtless steps are taken to leave the cork aseptic and not antiseptic—that is to say, perfectly clean and free from the chemical after the process has been completed.

PERFORATION IN TYPHOID FEVER.

THOUGH the subject of perforation in typhoid fever is trite and has been repeatedly discussed by the ablest writers, Dr. J. C. Meakins has published in the *Montreal Medical Journal* for October a minute study of 32 cases which is a valuable contribution to the subject. He complains that in spite of all that has been written upon the need of differentiating the perforation from the associated peritonitis the most recent books still give among the classical symptoms of perforation those which depend only on the peritonitis. His paper is based upon 32 cases of perforation which occurred among 1230 cases of typhoid fever treated in the Royal Victoria Hospital, Montreal. Of these cases 20 were submitted to operation with five recoveries. In the remaining cases of perforation an operation was not performed because the patients were moribund, because they declined operation, or because the diagnosis was not made. The onset of the symptoms of perforation was usually sudden, rarely insidious. By far the most important symptom was sudden pain, which occurred in 84 per cent. of the cases. In one case it was the only sign and was so characteristic as to lead to operation. But many other conditions may cause pain—fæcal accumulation, perityphlitis, gall-stones, appendicitis, gastric perforation, tuberculous perforation of the intestines, pancreatitis, rupture of the mesenteric glands or spleen, and typhoid peritonitis spreading by continuity without perforation. Sometimes during the course of the typhoid fever there has been more or less constant pain which will cause difficulty in the diagnosis of perforation. One sign was found very characteristic of perforation and indicative of free gas in the peritoneal cavity—obliterated liver dulness in an undistended abdomen. In a distended abdomen such obliteration is of little value as it may be due to distension of the intestines. The pain of perforation may be relieved either spontaneously or by treatment. Hot fomentations or an enema may give relief for some hours. The location of the pain may be in any part of the abdomen. In 21 of the cases it was diffuse. In four cases it radiated towards the end of the penis and in two towards the rectum. Tenderness was present at some time in every case and was an early and important symptom. Its position varied very much; it was diffuse in 18 cases and in the remaining cases was localised, chiefly in the lower half of the abdomen. It usually corresponded in situation to the pain and did not disappear with the pain. Rigidity was present in 24 cases and often appeared very late. It was general or local. In the latter case the lower quadrants were most frequently affected. The charts were not found of much use in doubtful cases. The pulse, for example, was often not altered until late and remained under 100 until the time of operation. The temperature was found still more untrustworthy. In eight cases it showed no change; in ten it fell but usually not until some hours after perforation, the average time being five hours; in seven it rose, in four

suddenly and in three more gradually. The respiration often showed an early increase in rate but in 11 cases there was no increase. The change in the facies was found to be untrustworthy. As a rule there was some change expressive of anxiety but there were many exceptions. The Hippocratic facies was generally not found until after ten hours. An immobile abdomen with thoracic breathing was found to be a valuable sign. Percussion of the abdomen was not found to be of much use. Dulness in the flanks was not infrequently present without perforation and, on the other hand, was frequently absent with perforation. Rectal examination gave valuable information in five out of six cases; tenderness was felt on the right side and later on both sides. The leucocyte count was of little value. The question of deciding upon operation is difficult. Dr. Meakins is inclined to endorse the dictum, when pain, tenderness, and rigidity coexist operate. He recommends that typhoid patients should be treated in hospital where there is every facility for operation, and that they should be carefully examined daily and their condition recorded. Pain should always be regarded as important. Tenderness is the next most important symptom. Early local rigidity should be carefully looked for. An increase in the rate of respiration is important. A rectal examination should always be made. In cases of doubt it is better to explore than to wait until it is too late. Too much significance must not be attached to the chart which frequently for some hours after perforation shows no change.

FREE BURIAL OF THE DEAD IN SWITZERLAND.

IN the canton of Basle city the law provides for the burial of the dead at the expense of the State. Coffins and all other necessary articles are furnished on application to certain undertakers designated by the Government. Everything connected with the interment is absolutely gratuitous, including the grave and the service. Rich and poor alike are entitled to the benefit of this law and all classes avail themselves of it freely. Of about 1600 burials in the course of a year about 1100 are at the expense of the canton. The execution of the law is intrusted to an official of the sanitary department. The accounts of this department show that the average yearly cost is as follows: coffins, £477; burial expenses, £1105; salaries, £645; care of cemeteries, and so on, £460. On Jan. 1st, 1895, a law providing for the gratuitous burial of the dead in the canton of Neuchâtel came into effect. It provided that each commune in the canton should furnish everything requisite for the burial of its deceased citizens except coffins, which might also be given when the several communes made special provision for that purpose. In nearly all the cantons of the consular district of Zürich the dead are buried by, and at the expense of, the communities, such being part of the duty of the health authorities. Burial grounds are provided by the communities, the cantons bearing part of the expense, and no fee is charged to any family for burial plots. The burying of the dead is part of the duties of the local government, either of the city council or of the health authorities. The communities provide for the following expenses: (1) medical inspection; (2) advertising of funerals; (3) coffin and dressing of the dead; (4) funeral procession and hearse service; (5) opening and closing the grave; and (6) putting up and numbering headboards on each grave. The graves must be ornamented with growing plants in a modest way at the expense of the community but families have the privilege of adding to these decorations. In nearly all the communities of the canton of Aargau funeral expenses must be paid by the family of the deceased; only in a few communities are these expenses paid out of the public funds. In the canton of Glarus the interment of all the dead (citizens as well as temporary inhabitants or strangers) is provided for entirely at the expense of the State. The burial takes place under the supervision and according to the regulations of the community in which the deaths occur but the canton pays all the expenses for the inspection of the body, notice of funeral, furnishing the coffin and laying out the body, conveying the remains to the cemetery, digging and covering the grave, marking the last resting-place, and keeping it in proper condition for a term of ten years. The dressing of the body is left to the relatives but in the absence of such and in the case of strangers it is also attended to at the expense of the canton. The relatives are authorised to provide for special adornment of the grave and for monuments. The cemetery is the property of the community and is placed under the care of a superintendent who has charge of the grounds, arranges for and conducts the funerals, keeps a register of the graves which are numbered consecutively, and sees that they are properly marked and kept in order. The regulations for the burial of the dead are minutely described. The body is subject to inspection and the demise is reported to the recorder of life statistics by the attending physician or a special inspector. The coffins are to be made of pine-wood after a model to be prescribed by the cantonal authorities who also establish a uniform price for them. The graves follow each other in regular order in uniform rows and the dead are all laid side by side without distinction as to standing in life, religious belief, or cause of death. Children, however, on account of the smaller size of their graves, are buried apart from the adults. Religious services may be held according to the faith of the deceased but in case they are dispensed with, in compliance with the wishes of the deceased or his relatives, the customary tolling of the bells still takes place and the recorder of life statistics reads at the grave the personal record of the deceased. The officials and employés at burials are strictly prohibited from accepting gratuities. Expenditure incurred for the interment of persons who are not citizens of the canton may be recovered out of the assets of the deceased, from responsible relatives, or from the communities to which they belonged while living. Graves, generally, are only to receive one body and are not to be opened for the reception of other bodies until after the lapse of such number of years as is assumed to be required for the complete decay of the body, which varies in the different cantons from three to 12 years for children and from 12 to 20 years in the case of adults. Wherever free burial has been introduced it has been done on the principle that death making all men equal there ought to be no distinction in the burial of the departed.

THE PHARMACOLOGY OF INDACONITINE AND BIKHACONITINE.

THE pharmacology of the aconitines produced from two varieties of Indian aconite has been published by Professor J. Theodore Cash, F.R.S., and Mr. Wyndham R. Dunstan, M.A., LL.D., F.R.S.[1] One of these alkaloids has been named indaconitine and is found in the roots of *Aconitum chasmanthum*, Stapf, formerly erroneously named *A. napellus*, var. *hians*, Bruhl. The other alkaloid has been named bikhaconitine. It is derived from a poisonous aconite which was named by Bruhl *A. ferox*, var. *spicatum*, but has been re-named *A. spicatum*, Stapf. Its vernacular name is Bikh. Both these aconitines agree in their qualitative effects with aconitine, japaconitine, and pseudaconitine. The toxicity of indaconitine is less than that of bikhaconitine as regards warm-blooded animals, standing near in this respect to the aconitine of *A. napellus*. Bikhaconitine is somewhat

[1] Proceedings of the Royal Society, Series B., vol. 76, No. B.512, Oct 7th, 1905, p. 468.

stronger than japaconitine and occupies a position between this alkaloid and pseudaconitine from forms of *A. ferox*, the most active member of the series. The depression of the respiratory function by indaconitine is less than that produced by bikhaconitine and to this the greater toxicity of the latter is referable. In the case of frogs the toxicity of the two new alkaloids is practically equal, though bikhaconitine is more active than indaconitine in reducing the respiratory activity. On the other hand, it is somewhat less active in abolishing the excitability of muscular and intramuscular motor nervous tissue, as shown by immersing muscle-nerve preparations in solutions of the alkaloids; bikhaconitine is less active also in reducing the ability of the muscle-nerve preparation poisoned *in situ* for the performance of work sufficient to cause fatigue. The local effect of the two aconitines when applied to the skin by inunction is equal and similar to that of other aconitines. As a result of this research indaconitine and bikhaconitine may be substituted for aconitine and pseudaconitine for internal use. Indaconitine is administrable in the same dose as aconitine, and bikhaconitine in the proportion of 0·75 of the unit dose of aconitine. For local application they may be used as constituents of ointments in similar proportions to the aconitine of *A. napellus*.

"DR. BELL'S" CIRCULARS.

READERS of THE LANCET know that we have from time to time called attention to the profuse distribution through the post of a filthy circular by a person or persons under the style of "Dr. A. Bell." The circular was of an offensive and dangerous nature, calculated to frighten ignorant persons with reference to their so-called "vitality" and to lure them into spending money upon a worthless invention called a "self-restorer belt." For a long time it seemed as if the procedures of "Dr. Bell" were secure from legal interference, but we continued to impress upon Scotland Yard the gross nature of the offence that was being committed and at length a successful prosecution has been undertaken. The letter of Mr. F. S. Bullock, writing for the Assistant Commissioner from Scotland Yard, which appears in another column, details briefly the result of the action of the Criminal Investigation Department, and we are glad to think that a scandalous nuisance has been suppressed, not a little owing to our action.

THE TREATMENT OF ALCOHOLISM IN RUSSIA.

AN advance in civilisation initiated by the medical profession is reported from St. Petersburg, where it seems likely that the old police system of "sobering chambers" is to be done away with. The report of the Imperial Alcohol Commission upon this system, to which its attention seems to have been drawn by a series of authenticated cases reported by the Medical Department, is an altogether damning one. It states that a "sobering chamber," constructed to hold about ten persons, but entirely devoid of furniture, is attached to each police station in the city, the average number of drunken persons annually treated in them amounting to more than 50,000. The deaths which occur in the state of drunkenness amount to 200 yearly—i.e., about 38 per cent. of the total annual number of sudden deaths in the city. This is easily understood from the following passage of the report: Those who are found in the streets unconscious from drink are stripped to the shirt and dragged into the chamber, which is only built for ten at most but in reality often contains as many as 60 drunken persons. In consequence of neglect of proper precautions and the vomiting which ensues the atmosphere of this confined space becomes suffocating, so that sometimes even the lamps are extinguished. The drunkards lie literally on top of one another and cover each other with filth. Many cases are recorded in which drunkards recovering consciousness amidst these fearful surroundings have committed suicide through their sense of disgrace; others die in the effort of vomiting. The Commission recommends that the sobering and treatment of persons suffering from acute alcoholic poisoning should be withdrawn from the police and handed over to the city corporation or the public infirmary, the Treasury Department for the Sale of Intoxicating Liquors to defray the necessary expenses.

THE MEDICAL MAN, THE CORONER, AND THE PATHOLOGIST.

AN inquiry was commenced on Tuesday last at the offices of the London County Council, before Mr. T. Barclay Cockerton, Local Government Board auditor, into an application made by the British Medical Association with reference to the fees paid by Mr. Troutbeck, the coroner for South-West London, to Dr. Freyberger. The British Medical Association holds, as we have maintained in our columns, that the circumstances in which Dr. Freyberger is employed by Mr. Troutbeck have often been illegal and that the auditor should disallow the repayment in such cases to Mr. Troutbeck by the Council of the fees given by him to Dr. Freyberger.

A LIBERAL-MINDED BOROUGH COUNCIL.

IN connexion with the assessment of the new premises of St. John's Hospital for Diseases of the Skin, Leicester-square, it is interesting to learn the result of an appeal made by the board of management through a deputation consisting of the senior physician, Dr. Morgan Dockrell, and the secretary, Mr. G. A. Arnaudin. The new assessment had been fixed for rateable purposes at double the value of the former premises but the assessment committee of Westminster on hearing the arguments of the hospital met the appeal in a generous spirit and concluded to allow the rateable value of the premises to remain on the old basis. This is most important; it shows that the Westminster city council, second in importance only to the City of London among municipal governments, is desirous of helping as far as lies in its power the hospitals within its borders and it affords an excellent example to other rating authorities.

ADRENALIN IN THE TREATMENT OF HÆMOPTYSIS.

IN the Paris letter in our issue of Oct. 28th, p. 1296, will be found a brief note of the direct injection of adrenalin into the apex of one lung with a view to the treatment of hæmoptysis in a case of pulmonary tuberculosis. As a result there was sudden and complete pneumothorax on the side in which the injection was made, together with arrest of the hæmorrhage. The case was described by M. Galliard before the Hospitals Medical Society and in the discussion which ensued M. Dufour attributed the cessation of the hæmoptysis to the collapse of the lung resulting from the pneumothorax and stated that he had never found adrenalin of value in the treatment of hæmoptysis. M. Lermoyez was of opinion that adrenalin was only of value as a temporary hæmostatic and that when the constriction induced by it passed off there was a liability to recurrence of the hæmorrhage. With regard to the use of styptics in the treatment of hæmoptysis there is among many authorities in this country a strong opinion against their use and we think rightly so. Most styptics, especially those such as adrenalin, ergot, and hamamelis, act by producing constriction of the vessels and when given internally are therefore liable to cause a rise of general blood pressure, which is above all things to be avoided in cases of hæmoptysis, to say little

of the fact that many of them tend to produce constipation, which is likewise disadvantageous to the patient. Of course, if it were possible to apply them locally to the bleeding vessel there would be some justification for their use and some probability of success, although it may be questioned whether the effect on the walls of an aneurysm in a pulmonary cavity would be commensurate with that on a comparatively healthy vessel elsewhere. Moreover, in a case of pulmonary tuberculosis with multiple lesions it might be impossible to be certain from which of them the hæmoptysis originated. The present case illustrates the difficulty of any attempt at the topical application of styptics since a similar pneumothorax would be very likely to result in many cases. The suggestion that the production of an artificial pneumothorax might be of avail in arresting the hæmorrhage in a case of hæmoptysis is no new one, since several years ago Dr. William Cayley put it into practice in a case of persistent hæmoptysis but without avail. Again, the same method has been used by Murphy[1] in the treatment of some cases of localised tuberculosis of the lungs. He allowed a measured quantity of some sterile inert gas to pass into the pleura through an aspirating needle, but although successes were recorded the procedure proved to be associated with risks and some failures resulted. That the method adopted in the present case was successful directly or indirectly can hardly be used as an argument for its adoption in other cases, at any rate unless they are so severe as to be otherwise apparently hopeless, or so prolonged as to be dangerous, since in a considerable number of cases even of severe hæmoptysis the natural tendency is to arrest spontaneously.

AN OPEN-AIR SANATORIUM FOR MIDDLESEX.

WE have received a pamphlet entitled, "Is It Worth While?" written by the honorary secretary of the county sanatorium committee, with a preface by Sir William H. Broadbent, advocating the erection of an open-air sanatorium for the treatment of pulmonary tuberculosis among the wage-earning classes of the county of Middlesex. It is stated that during 1904 the deaths from tuberculous disease in the county amounted to 1428, 993 being due to pulmonary tuberculosis. These figures show a considerable advance on those of the average of the three preceding years which are 1212 and 794 respectively. At a meeting held to inaugurate the movement for the establishment of a county sanatorium Sir William Broadbent pointed out the inadequate provision of sanatorium accommodation for the tuberculous poor of London, and further that the needs of London were so overwhelming that the county would derive little advantage from participating in any metropolitan scheme. The pamphlet is written as an appeal for funds to found an institution for 100 patients, the amount required being estimated at £30,000. It urges the value of such an institution not only from the point of view of assisting in the arrest of the disease but also its educational value in teaching the sufferers the most suitable mode of life and the adoption of precautions against spreading infection to others. There are at present eight local sanatoriums for the reception of cases of tuberculous disease from seven counties and three townships and the writer of the pamphlet is satisfied from inquiries he has made that they are all well supported and are doing good work. He is of opinion that such institutions when once founded can be successfully supported by payments for definite cases, by payments from local authorities and from associated workmen, and by subscriptions raised in different townships. He suggests that, if possible, the sanatorium should be established in the county itself and that the buildings and accommodation should be simple, conforming as far as possible to the ordinary domestic arrangements of the class from which the patients will be drawn—in other words, that the hut or bungalow system would be preferable to more elaborate buildings, in order that the patients may more readily carry out a similar manner of living on their return to their own homes. It has been found that the cost of maintenance in sanatoriums of similar character to that proposed is under 25*s.* per bed per week, so that the total cost of carrying on the institution, once it has been established, need not be beyond the capacity of those who should support it. Already some public authorities in the county have engaged to establish and to maintain 25 of the proposed beds. Sir William Broadbent points out in his preface to the pamphlet that the prevention of the disease by the withdrawal of centres of infection is perhaps even more important than the actual curative value of sanatorium treatment, and Dr. A. Newsholme in his paper before the recent Congress on Tuberculosis at Paris[1] laid stress on the beneficial effect which the removal of advanced cases to infirmaries and other institutions has had upon the general death-rate from the disease. Indeed, as stated in our account of Dr. Newsholme's paper, there is a double aspect of the problem of the treatment of the tuberculous. To arrest the disease the earlier the patient can be transferred to a sanatorium the better, while to prevent spread of the disease segregation of advanced cases is most valuable. In the treatment of tuberculosis among the poorer classes the difficulty at the present time is to send them to sanatoriums in the early stages owing to the inadequate accommodation available.

SPECIAL SCHOOLS FOR BACKWARD CHILDREN.

WE referred in a recent annotation to the need which exists for substituting some compulsory scheme for the present permissive regulations regarding the provision of special schools for backward children. Under the existing conditions no arrangements for the care and training of such children are made by many education authorities and no attempt is made even to ascertain the extent of the evil which has to be met. For the latter purpose detailed examination of all children who are reported by their teachers to be below the usual standard of attainments must be carried out and such scrutiny can only be duly conducted by a medical man who has made himself familiar with the nature of the problems involved. Without special medical knowledge observers are liable to confound the results of mere physical defects with those of mental abnormality. Thus in an investigation recently carried out by Dr. Meredith Young, medical officer of health of Stockport, among 142 children reported by their teachers to be backward 42 were suffering from physical infirmities, 56 were mentally defective, and nine epileptic; 27 were merely backward or dull and four were deaf and dumb. Four cases were too young to be classified. Of the mentally defective children 13 appeared to be capable of benefiting by instruction given in the ordinary schools, 39 needed special instruction in classes adapted to the needs of feeble-minded children, while only four were of so low a type as to be incapable of receiving any instruction at all. Dr. Young points out that even on economical grounds the instruction of mentally defective children is most desirable, as many who would otherwise become a burden to their relatives or to the rates may be taught to do some simple manual labour and thus to earn their own living or to contribute to their own support. Great Britain is at present far behind many continental countries in respect to the provision made for this class but it is to be hoped that since attention has been forcibly directed to the need for special schools for their

[1] Journal of the American Medical Association, July 23rd, 1898.

[1] THE LANCET, Oct. 7th, 1905, p. 1058.

instruction rapid progress may be made in supplying the necessary facilities. But so long as no compulsion exists we fear that there will always be found some education authorities who remain oblivious of their manifest duties.

THE TREASURY AND MEN OF SCIENCE.

Lord Crawford has written a pertinent letter to the *Times*, taking for his text the death of Professor Ralph Copeland, Ph.D., F.R.S.E., the Astronomer-Royal for Scotland. Lord Crawford points out that in former days it was the custom when a man distinguished in science was brought into the Civil Service with a high position he was credited with a certain number of years' service ranking for pension. This practice has now been done away with and a bargain system has been substituted. Professor Copeland wished some time ago to resign his appointment on account of ill health but the pension to which he would have been entitled was so inadequate that on the advice of Lord Crawford he stuck to his post till death, although feeling that he was unfit for work. The pursuit of astronomy, though of infinite value to a nation, deeply engaged in ocean traffic, is by no means a lucrative one. Professor Copeland was 52 years of age when he was appointed Astronomer-Royal for Scotland and apparently his pension was calculated on the length of his service, which at the time when he wished to retire would have been about 15 years. Small wonder, then, that the allowance was insufficient to live upon. In our opinion any man who undertakes a responsible State position after middle life should be granted a pension on retirement as if he had entered the service while young, or should be paid a salary sufficiently generous to enable him to save. The salary attached to the office of the Astronomer-Royal for Scotland is only £400 per annum, a sum which offers few if any opportunities for saving. A system which compels men to hold on to a post when they themselves feel unfit for work is not only unfair to the holders but may be a source of danger to the public, as we have had to point out when discussing the similar position as it exists among the medical officers of the Irish Dispensary Service.

THE PARLIAMENTARY REPRESENTATION OF THE UNIVERSITIES OF EDINBURGH AND ST. ANDREWS.

THE supporters of the sitting Member of Parliament for the Universities of Edinburgh and St. Andrews, Sir John Batty Tuke, M.D, have organised a general committee on his behalf, inasmuch as the seat is to be contested at the general election, when that takes place. We have perused a printed statement, signed by Professor Thomas Annandale, chairman of Sir John Batty Tuke's committee, of Sir John Batty Tuke's services to general, medical and educational causes during the five years that he has sat in Parliament, and it constitutes a record of which any man might be proud. He has used his influence in support of proposals in which the profession is deeply interested—such, for example, as matters having relation to vaccination, unlicensed practice, the treatment of habitual drunkards, and the improvement of the position of navy and army surgeons and of other medical practitioners engaged in the public service. On all matters of public health he has shown himself a most valuable Member of the House of Commons, and, generally speaking, he has proved the already proven fact that medical training and medical knowledge make an excellent foundation upon which to build a political career. The time has not arrived for the issue of any election address and, so far as we know, Sir John Batty Tuke has not been asked by anyone to define his party position more accurately than is implied in his formal adherence to Mr. Balfour as a chief, but the constituency of the Universities of Edinburgh and St. Andrews is one of the few, the unfortunately few, constituencies in the country where the party spirit can be subordinated to the real needs of an enlightened electorate. The seat is in the hands of a highly educated body of voters, a large proportion of whom are medical men. They will be able to appreciate Sir John Batty Tuke's wide and scientific claims to continue as their Parliamentary representative and to set party considerations in their proper place.

SANITARY MEASURES IN CUBAN CHURCHES.

THE sanitary department of the Havana municipality is, according to the *Archivos de la Policlinica*, preparing to take energetic measures to stop the serious dissemination of disease through the use of the holy water at the entrance of the churches. The crowd of beggars who usually stand soliciting alms near the church doors, many of whom are afflicted with contagious skin diseases, invariably commence their day's "work" by dipping their fingers into the holy water stoup. Many of the worshippers who follow, not content with making the sign of the cross on their foreheads with the moistened finger, dip their handkerchiefs into the water to wipe their own or their children's faces. It is suggested that the stoups should be covered and provided with a small spout from which the water should drip all day long into a receptacle connected with a drain. This would afford worshippers complete protection and would not in any way interfere with their observance of the customary rite.

AT the meeting of the Incorporated Society of Medical Officers of Health to be held on Friday, Nov. 10th, Dr. Christopher Childs will read a paper upon the late Epidemics of Typhoid Fever at Lincoln, Maidstone, and Worthing, in connexion with which he will bring forward the following proposition:—

> In case of a typhoid epidemic it is necessary to have in reserve a staff of experts who will be prepared, *if called in by the local medical officer of health*, to go at once to the locality invaded to coöperate with and under him; to assist in tracing out the source and channels of infection and in detecting incubating, ambulant, and abortive cases; and to investigate all circumstances of the epidemic which may throw light upon the etiology of this disease.

Sir Robert Ball will deliver a lecture in the anatomical theatre, St. Bartholomew's Hospital, on Friday, Nov. 10th, at 8.30 P.M. Invitations are now being issued by the honorary secretaries of the Students' Union at the hospital.

H.R.H. the Prince of Wales has graciously signified his approval of the appeal to raise an endowment fund for St. George's Hospital Medical School by sending a donation of £100.

THE meeting of the Pathological Society of London, announced for next Tuesday evening, Nov. 7th, has been postponed.

THE second London Medical Exhibition will be held at the Royal Horticultural Hall, Vincent-square, Westminster, S.W., from Oct. 1st to 5th inclusive, 1906, from 11 A.M. to 6 P.M.

UNDERFED SCHOOL CHILDREN.—The Loughborough (Leicestershire) board of guardians has adopted a report recommending an appeal to the public for funds to enable the county education committee to feed any child sent to school without proper nourishment owing to one of the following causes: (1) on account of the parents being permanently impoverished; or (2) on account of the parents having become incapacitated from making the necessary provision through temporary sickness, loss of employment, or some other unavoidable cause. Cases where children require feeding owing to the wilful neglect of the parents will be dealt with as stipulated by the new Order of the Local Government Board.

CONFERENCE OF THE CENTRAL INTERNATIONAL BUREAU FOR THE PREVENTION OF CONSUMPTION.

THE meetings of this conference were held in Paris from Oct. 4th to 8th—that is to say, at the same time that the International Congress on Tuberculosis was taking place. Unfortunately, it was not found possible for the conference to meet at the Grand Palais, otherwise it would have been more easy for those members of the International Congress who were also members of the Central International Bureau to take part in both assemblies. The meetings of the Bureau were held at the buildings of the Faculty of Medicine, a considerable distance from the Grand Palais.

Amongst the communications presented to the conference were the following:—

Dr. G. A. HERON read a

Résumé of a Report on the Actual State and on the Prospects of Education in Hygiene in Schools in the United Kingdom.

Dr. Heron said that the report was presented on account of the requirements in the resolutions passed by the conference held in Copenhagen in May, 1904, and published in *Tuberculosis* in September, 1904. The departments of education in the United Kingdom were earnest in their desire to do what they could to help on the cause that they all had at heart and so it seemed certain that the teaching of hygiene in schools would soon become a marked feature of the national education. So complex was the system of school management and control in the United Kingdom that few people not within official circles had even a hazy notion of its details. In the training colleges of the United Kingdom instruction in hygiene was offered to those who intended to become school teachers. Unfortunately, however, the study was optional. The syllabus of this instruction varied a good deal in the three kingdoms. In certain of the elementary and other schools the scholars received a small amount of instruction in hygiene. It was also unfortunately true that this teaching was not a compulsory part of the education of children in the schools. A syllabus of the instruction in this subject had been drawn up by the central authorities and was in full use in some schools. But the local authorities who stood between the schools and the local authorities had power to authorise or to prevent this instruction being given in the schools in their respective localities. Both in the training colleges and in the schools the teaching in hygiene was far from being all that could be desired. It was markedly defective in the giving of instruction in the prevention of infective diseases, and tuberculosis, the worst of all these, received very little special attention. The report dealt in some detail with the systems of teaching hygiene in use in the training colleges and schools in the United Kingdom. A committee had been appointed in London by the Incorporated Society of Medical Officers of Health to consider the subject of the teaching of hygiene in universities and schools. The following conclusions had been arrived at by the committee. Instruction in hygiene should be a compulsory part of both university and school education. In the universities all the details concerning this matter must of necessity be left to the authorities of the respective universities. The education authorities should be asked to intrust to medical men the teaching of hygiene in the colleges in which the pupils are trained for the work of school teachers and so its efficient teaching should soon be secured in the elementary and other schools. A syllabus embodying the views of the committee concerning the method which medical men should adopt in teaching hygiene in training colleges had been drawn up and would soon be presented to the education authorities. Dr. Heron thought that there was a good prospect of soon securing proper practical recognition of the importance of teaching elementary hygiene to school children in the United Kingdom.

Professor B. FRÄNKEL (Berlin) made some observations on

International Tuberculosis Statistics.

He stated that on July 3rd last a commission of the International Central Bureau for the Prevention of Consumption met in session at Frankfort-on-the-Main with the intention of inducing the International Statistical Institute to include the question of the tuberculosis statistics in its programme of work. The commission unanimously adopted a form for the compilation of mortality statistics. There were three main headings under which details were to be given. They were as follows: (*a*) pulmonary tuberculosis (including tuberculosis of the pleural membranes and of the larynx); (*b*) tuberculosis in which organs other than the lungs were chiefly affected (under this heading were to be included tuberculosis of the joints, bones, and glands, and also "scrofula"); and (*c*) acute miliary tuberculosis. Only cases of death which had been medically certified would be taken account of in drawing up the statistics. Professor Fränkel thought, however, that attention should be elsewhere given to those cases of death which had not been medically certified. In countries inhabited by various races the statistics for each race should be given separately. The exact method of compiling the counting cards thus filled up must be left to the choice of the individual countries. Dr. Fränkel was of opinion that the method of counting cards adopted by Switzerland could be used as a model. It was of importance that a principle of the greatest possible simplicity should be adhered to.

Dr. NATHAN RAW (Liverpool) presented a communication on

Measures to be adopted by Health Authorities and Municipalities in the Prevention of Tuberculosis.

Dr. Raw commenced by remarking that as tuberculosis was a preventable and infectious disease, and recognising its widespread and almost universal distribution amongst civilised communities, it was of the highest importance that all municipalities and health authorities throughout the world should make some earnest and organised attempt to prevent the spread of the disease. He then made various suggestions as to the measures which should be adopted. 1. In every town a special committee should be appointed to deal with tuberculosis in all its aspects and to direct the measures for its prevention. This committee might be composed of members of the council, together with medical men and others who would be likely to be of assistance. 2. With a view to enlighten the public on the nature of the disease special lecturers should be appointed to give instruction. In all schools also the special rules with regard to its prevention and treatment should be taught. 3. Voluntary notification should be made of all cases of "pulmonary consumption," and in course of time, when the public were sufficiently enlightened as to the nature of "consumption," it might be possible to introduce compulsory notification. 4. In every case where a death from pulmonary tuberculosis had occurred in a house the authorities should offer thoroughly to fumigate and disinfect the rooms. 5 It would be of the greatest service in every large town if a dispensary could be provided where all "consumptives" might apply for advice and treatment and be informed as to the best measures to adopt. Trained nurses should be employed to visit poor cases in their homes and to assist them if required with food and other necessaries. 6. In connexion with the dispensary it would be possible to carry out scientific investigations as to the distribution of the disease in each town. 7. In every town a sanatorium should be provided for the treatment of early cases of consumption arising amongst its needy citizens at a moderate cost. 8. It was also of the greatest importance that advanced cases of consumption should be isolated in a hospital or sanatorium as there could be little doubt that those cases were the most potent cause of the spread of the disease to children and relatives. 9. If it were possible it would be a wise procedure to establish in every large centre a colony for "consumptives" where sufferers from the disease might congregate and those who were able might follow some employment. It would be desirable also if cheap open-air dwellings could be erected outside towns where those who had been treated in sanatoriums might afterwards live. It was also necessary that the after-treatment of consumptives should be considered and desirable and suitable employment found for them by the municipality.

Professor VON SCHRÖTTER (Vienna) presented a communication on

The Question of Predisposition,

in which he made several suggestions as to the lines upon which an investigation of this nature should follow. In the first place the families of tuberculous patients should be watched and the subsequent histories of the children carefully followed. Especial care should be taken to place in

one category those who remained with their parents and in another those who were taken away from them. Another point to inquire into would be, What became of children born of decidedly delicate but not tuberculous parents? Did such parents transmit to their children a special predisposition to tuberculosis. Individuals living in tuberculous surroundings and remaining perfectly healthy should be examined in relation to their family history and their general circumstances and habits of life. Further information might be gained by noting the life-history of people whose bodies after death showed no trace of tuberculosis. Infants and elder children born of a tuberculous stock should be injected with tuberculin and the results recorded, notice being directed to the point as to whether such infants were suckled by the mother or were brought up by hand. In cases of deaths of individuals, apparently not tuberculous, taking place during the critical age (from 17 to 20 years) as a result of accident, infectious disease or other malady not tuberculous, the lymphatic glands should be examined as to evidences of tuberculosis. Special attention should be paid to the tonsils. Children who have suffered from adenoids should be kept under observation with a view to observe any possible relation with tuberculosis. Another question requiring answer was, When does the "habitus phthisicus" develop? A comparative table should be drawn up of the measurements of children at different ages, placing in one class children of healthy ancestry and in another those with a history of tuberculous parentage. The relation of chlorosis to tuberculosis was another matter requiring investigation.

PUBLIC HEALTH IN BOMBAY.

IN his annual report for the year 1904 Dr. J. A. Turner, executive health officer of the municipality of Bombay, commences with the statements that the population of the city, estimated by the census of 1901, was 776,006, and that the area of the city and the island of Bombay is 22·45 square miles. The number of births registered during 1904 was 19,556; this is the highest number ever registered in Bombay and gives a general birth-rate of 25·20 per 1000 of the population. In the classification of the population according to religion and race the highest birth-rate—namely, 40·21 per 1000—occurred among the Jains who number only 14,248, or less than one-fiftieth of the general population; the proportion of Europeans is smaller still, the total number being 12,273, and the birth-rate among them was 14·74 per 1000. The number of deaths during 1904, exclusive of stillborn children, was 42,676, giving an annual death-rate of 54·99 per 1000 of population, which was the lowest mortality since 1897. The number of deaths from the 12 principal zymotic diseases was 18,397, being 8892 less than in the previous year and giving a zymotic death-rate of 23·70 per 1000 of population. The deaths attributed to some of the zymotic diseases were as follows: small-pox, 568; measles, 229; plague, 13,538; enteric fever, 55; malarial fever, 2361; cholera, 219; dysentery, 921; and puerperal septicæmia, 363. In every section of the city there was a decrease in the number of plague deaths during the year. Of the deaths from this cause registered in each month of 1904 the lowest number was 203 in July and the highest was 4096 in March; the greatest number of deaths from plague on any one day was 167 on April 1st. Several pages of the report are devoted to such questions as the cleansing of house drains, the removal of house and street refuse, horse and cattle stables, bake-houses, the supply of pure milk to the poor, the providing of bathing and washing places, the collection and disposal of night-soil, overcrowding, hospital accommodation and ambulances, and the measures to be taken against the importation of disease by persons coming from infected districts. Under this last heading Dr. Turner recommends (1) that the names of those who arrive from infected localities and their addresses in Bombay should be furnished to the health department; (2) that any person arriving in Bombay while suffering from plague, cholera, or small-pox should in any circumstances go to a hospital; and (3) that all the relatives and friends travelling in contact with the patients should either go for ten days to the camps provided by the municipality or remain under observation in their homes. Under this proposed system there would be no inspection of railway passengers and no delay in traffic. The routine would be that when a city or town was infected with plague, cholera, or small-pox the passengers leaving the city must be provided with forms in which their names, destination, and address are written in English or vernacular; this form would be given up at the destination to the railway authorities, who would hand it over to the sanitary authorities. With respect to the control of plague in the city Dr. Turner expresses strong opinions as to the necessity for evacuating overcrowded and infected areas and providing huts and camps for the displaced inhabitants. He, however, complains that the work of the health department is hampered in various ways, chiefly by the Port Trust which wishes to have the existing camps and hospital discontinued.

With regard to prophylactic inoculation against plague Dr. Turner says: "The officers of the Plague Research Laboratory are perfectly satisfied and have satisfied Government that the fluid now prepared is absolutely sterile and that it confers a greater immunity than previously, and that the inoculation is harmless, and that the operation properly done cannot cause any ill-effects. ..... In Bombay during the last eight years the case-rate or the number of persons attacked is 25 per 1000 and the mortality-rate is 85 per cent. of those attacked. The latest inoculation figures give the case-rate amongst the inoculated as 18 per 1000 and the mortality as 23 per cent. of those attacked." He goes on to say that from his personal knowledge of the people he is sure that unless some great inducement to accept inoculation is offered to them very little can be done. He considers that a sufficient inducement might be constituted by a system of life insurance in accordance with which the Government would pay 100 rupees to the nearest relatives of inoculated persons who die from plague within one year after inoculation.

In one of the appendices to Dr. Turner's report Dr. N. H. Choksy, the special assistant health officer, devotes considerable space to a criticism of certain views on the pathology of plague propounded by Dr. William Hunter of Hong-Kong. With regard to the treatment of the disease Dr. Choksy describes the results obtained in Bombay by the employment of carbolic acid, izal, adrenalin chloride, and five various serums. Of all these adrenalin seemed to be the most useful; among 668 cases treated with it there were 463 deaths, or a mortality of 69·3 per cent. In another appendix on the treatment of cholera Dr. Choksy speaks favourably of the administration of cyanide of mercury as suggested by Dr. A. Mayr in 1900. The cyanide is given in doses of one-tenth of a grain dissolved in an ounce of water with a little simple syrup. This is repeated every two or three hours according to the frequency of the motions until they cease. If the patient is in the collapse stage with infrequent motions only a few doses are required. Rectal injections, consisting of a pint of warm water to which are added a drachm of sodium chloride and one and a half drachms of sodium bicarbonate, are given at intervals varying from four to six hours, every effort being made to prevent rapid expulsion by elevating the hips, raising the foot of the bed, &c.; these injections are rapidly absorbed and the secretion of urine is quickly re-established. No alcohol is given; the only food allowed is hot strong black coffee without milk or sugar.

THE ADMINISTRATION OF POOR-LAW INFIRMARIES.

ONE of the principal subjects discussed at the annual meetings of the North Midland Poor-law Conference at Leicester on Oct. 18th and 19th had reference to the administration of the Poor-law infirmaries.

Dr. JOHN DODD, the medical officer at Leicester workhouse infirmary, who introduced the subject, said it had always been the custom and practice to look on Poor-law infirmaries as places for the aged and sick to die in. The position was this,—Was a town which spent, say, between £6000 and £7000 a year on an infectious diseases hospital and anything from £12,000 to £16,000 a year on lunatics justified in spending such a sum as would insure the proper treatment of Poor-law infirmary patients—some of whom had been a valuable economic asset to the country, whilst the economic value of others could be

restored by proper treatment? A few years ago ideas with regard to tramps centred mainly in repression; now it was reformation by labour colonies. Sickness, especially among the poor, was a serious economic loss to the individual and to the community. The number of patients in Poor-law infirmaries in the country was much larger than in voluntary hospitals and the question which arose was, Were they to be properly housed, fed, nursed, and treated? That question must be answered by every board of guardians one way or the other. It seemed to him that the successful administration of Poor-law infirmaries was comprised in the carrying out of the ideas represented in four words—system, method, detail, and coördination. If the work of the infirmary was carried out in the spirit of those words by the administrative committee and the executive officers the result would be highly satisfactory. What were the means or ideas by which efficiency was to be secured? There was frequently misconception as to the objects of an infirmary. It did not, or ought not to, exist as a monument to the genius of the architect or an object to be gazed at by the casual visitor and admired as a fine range of buildings. An infirmary existed for the treatment of patients and the principle ought to be carried out literally and practically, money which might be spent in ornamentation being devoted to equipping the institution in an up-to-date manner for fighting disease. The first care ought to be to provide sufficient and efficient medical attendance, and medicine and medical and surgical appliances ought to be supplied by the guardians without stint. If expense was a consideration let other estimates less important be cut down. With regard to the nursing—a most important element in the working of an infirmary—efficiency ought to be the keynote. This meant training by lectures and practical instruction and he (Dr. Dodd) did not see why the medical officer or superintendent should not be specially subsidised for this purpose. In conclusion Dr. Dodd said he thought that it was economically sound to restore wage-earners to health as soon as possible, and this, no doubt, would be the main work of Poor-law infirmaries, mental cases, epileptics, and the aged being cared for in different institutions. Patients from the smaller unions requiring special treatment might well be sent to the larger infirmaries, thus freeing to a great extent the voluntary hospitals. The modern infirmary should be of educational value to the inmates by reason of good cooking, nursing, and cleanliness. There had recently been a great development in Poor-law infirmary buildings. During the next decade or two these institutions would be on their trial and it was important that accusations of extravagance and incapacity should not impair their efficiency in the interests of the very poor.

The Hon. Mrs. CROPPER (Kendal Union) said that nursing by the inmates in Poor-law infirmaries ought not to be allowed. Inmates could be very useful to the nurses but the guardians should not reckon on such help in the real work of nursing. It almost seemed as if some guardians hung back from improvements owing to a sort of idea that by keeping the sick and senile rather uncomfortable and inadequately attended to they could keep down the number of inmates of their workhouse. It would be fairer perhaps to say that they were afraid to make the sick too comfortable lest more should come in. The points which required consideration were: the need for more nurses; the inefficiency of very small workhouses; and more attention to the needs of both nurses and patients.

Mr. HERBERT, the Local Government Board Inspector for the Leicester district, said that there was no country in the world where the sick poor were better looked after than in England. In London one out of every three of the population died in public institutions, in Leicester 16 per cent., and in Nottingham 18 per cent. He did not like large institutions but preferred the small ones.

Mr. TURNER (Chesterfield) said he did not think that the epileptics and the mentally feeble were treated as they should be in the Poor-law infirmaries. He emphasised the necessity of erecting buildings outside the town areas so that epileptics could be removed altogether from the workhouse.

The Hon. F. STRUTT said the question of epileptics was being carefully considered in London and he hoped that ample evidence would be submitted to the Commission appointed to deal with the subject to show the want which was felt in the midland counties for an institution for treating this unfortunate class. To his mind it seemed a scandal that the Local Government Board, the Commissioners in Lunacy, and the Home Office had not insisted upon county authorities erecting proper places where the young of this unfortunate class might be trained and kept in order in a certain way so as to make them less useless members of the community.

The CHAIRMAN (Mr. T. KEMP of Leicester) said that when the scheme for a new Poor-law infirmary for Leicester was put before the Local Government Board the latter knocked out that part having reference to the proposed erection of special pavilions for the treatment of imbeciles and epileptics. The Leicester guardians were informed by the authorities at Whitehall that this was a matter which was having the careful attention of a Commission which was then sitting. It seemed to him (the Chairman) that the Commission had been a long time sitting and he hoped that some tangible result would eventually accrue.

Dr. DODD, in replying to the discussion, advocated the German system of dealing with epileptics.

At the close of the conference a number of the delegates paid a visit to the Leicester Poor-law infirmary at North Evington.

THE INTERNATIONAL CONGRESS ON TUBERCULOSIS AT PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

THE SECTIONS.

FOURTH SECTION.

Economic Causes in the Social Etiology of Tuberculosis.

THE economic conditions governing the social etiology of tuberculosis formed the subject of a striking report by Dr. R. ROMME of Paris. He commenced by stating that the definition of tuberculosis as a "social malady" was emphatically endorsed by the Berlin Congress of 1899. Articles have been published attributing tuberculosis to unwholesome dwellings, to defective sanitation in workshops and factories, to insufficient wages, to alcoholism, and other similar causes. Dr. Romme thinks that all these causes are intertwined and that in all times there have been the economic causes which constitute the framework, and the political, administrative, social, and religious institutions which form the façade of the social edifice. The chief economic characteristic of modern society is the progressive substitution of mechanical for manual labour. The logical consequence is the concentration of the means of production and exchange of which the Trust is the last expression. Dr. Romme then quoted M. E. Vandervelde's work, "L'Exode Rural et le Retour aux Champs" (Paris, 1903), showing that agriculture is not a permanent work and must be supplemented in the winter months by such home industries as weaving and spinning, pottery work, basket making, and a hundred and one other manual occupations. Now most of this work is done by machinery and there is little or no remunerative occupation for the peasant during the winter months. Hence the great exodus of the small peasantry, abandoning the land on which they can no longer live and crowding into the towns. At the threshold of the problem the migration of the rural population to the industrial centres is one of the primary causes of the increase of tuberculosis. M. Georges Bourgeois, in his work, "Exode Rural et Tuberculose" (Paris, 1905), says the census of 1901 shows that out of 2,657,335 persons living in Paris 1,694,898 had migrated to the town and only 962,437 were actually born in Paris. So that of 100 Parisians only 37 are natives and 63 were born elsewhere. Of the natives 39·7 per 10,000 die annually from tuberculosis and of the immigrants 43·2 per 10,000 die from the same cause. The difference of 3·5 per 10,000 is the price paid for acclimatisation. This is the average, but if we enter into the details it will be seen that, for instance, persons coming from the departments of Haute-Marne, Haute-Loire, the Vosges, and the Morbihan experience when in Paris a death-rate from tuberculosis which is twice as high as that prevailing in the provinces from which they came. Nor is this all, for a further allowance must be made when dealing with the departments and villages from which these immigrants come. Rural districts are not all similar. Thus, M. Durosoy in "La Tuberculose au Village" (Paris, 1904) takes three categories of villages in the department of the Oise. The first consists of three thoroughly

industrial villages, the population working in cotton and linen spinning mills and in brush factories. The mortality from tuberculosis varies from 56 to 61 per 10,000. The next category consists of two villages where the inhabitants only work on the land and there the annual mortality from tuberculosis varies from 0 to 10 per 10,000. Finally, the third is a mixed population, a part working in the fields and the remainder in neighbouring mills. The mortality is 46 per 10,000. In Germany Dr. F. Fisher gives similar figures for the Black Forest. In one village he found a difference of 0·7 to 1·7 and in another of 0·6 to 2·1 in the mortality from tuberculosis between those who only worked on the soil and those who also worked in neighbouring factories. Even where tuberculosis did exist in purely agricultural villages it had often been introduced by the natives who had returned home after having accomplished their term of military service. It was the barracks and not the fields that had contaminated them. Dr. Romme then proceeded to examine the conditions of industrial work. He quoted the eminent statesman and skilled engineer who has been several times Prime Minister, M. Charles de Freycinet. This statesman wrote some 30 years ago that "the greater part of the industries, one might say all industries, are insalubrious." Long hours of work in unwholesome factories and workshops, poverty in overcrowded unhealthy homes, such conditions constitute the culture ground for the development of Koch's bacillus. Dr. Romme then referred to the home industries and the sweating system still prevalent in large towns. The factory inspector, or the *inspecteur du travail*, does not enter the private domicile. The reports of the French Ministry of Commerce and Industry contain terrible records. For instance, at Lille the owner of a workshop for making underlinen was condemned for employing girls under the age of 16 years. Thereupon the workshop was closed. The workpeople took the sewing machines to their private homes and there employed, with impunity and for from 12 to 15 hours per day, girls from ten to 12 years old. The competition between these home workers, separated and isolated from each other, and therefore incapable of any joint action, is so keen that in many cases, and notably that of the tulle embroiderers near Lyons, hardly more than 1*d.* per hour can be earned. M. F. Fagnot in "La Réglementation du Travail en Chambre" (Paris, 1904) estimates the number of men and women who work in their own private rooms or homes at 800,000; and as the industrial population of France is set down at 5,000,000 this would equal 16 per cent. of the whole. The report then gives a pathetic picture of the application of the sweating system to the furniture trade of the Faubourg St. Antoine and quotes reports by M. A. Fontaine of Brussels and Dr. A. F. Daniel of New York to show that the same conditions prevail in those cities, and by Dr. John H. Pryar who says that nearly all the victims of the sweating system are tuberculous. According to official statistics drawn up in France in 1896 there were, out of a population of 1,764,181 workpeople employed in mills and factories, 349,998 women and 95,714 young women from 18 to 21 years of age. When the wife works the home is neglected, the children have to be put out to nurse, and the absence of all comfort drives the man, if not also the woman, to the tap-room and this ends in alcoholism. Dr. Juillerat in the *Revue d'Hygiène* (1904) has attempted to show that it was the inhabitants of lower floors in towns where the houses are six or more storeys high who suffer most. Professor Romberg and Dr. G. Hädicke have, however, made special observations at Marburg in respect to 116 houses, 39 of which are qualified as nests of tuberculosis. The result is that these two German investigators declare that it is not always in the narrowest or most dirty streets that the greatest number of cases occur. In three old, dilapidated, narrow streets there were from 24·8 to 27·9 per cent. of cases of tuberculosis, but in two other streets equally narrow and defective there were only 9·1 and 10·4 per cent. of cases. These latter figures compare favourably with the well-to-do quarters of the town. M. Marcuse, who investigated the matter on behalf of an insurance society at Mannheim, also states that it is not necessarily in the old and bad houses that the greatest number of cases are found, nor does it follow that the fewest cases occur in new houses; but it is in those modern barrack-like houses that tuberculosis is most prevalent. Studying at Mannheim, as Dr. Juillerat did in Paris, the distribution of cases per floor in houses built on the flat system, M. Marcuse found that out of 329 cases of tuberculosis 1 lived in a cellar, 42 on the ground floor, 78 on the first, 77 on the second, 35 on the third, 5 on the fourth, and 91 on the top floor under the roof. To explain away the last figure Dr. Juillerat says that the dwellers in the attics must have been domestic servants who were infected while serving their masters on the lower floors. Though this is a general custom in Paris there is no reason to believe that the argument applies to a very different class of houses at Mannheim. It is more likely due to the fact that attic tenements are the cheapest and therefore are frequented by the poorest people. So far as air and light are concerned the attic tenement is especially favoured and certainly receives the maximum of sunshine; but all goes to show that whether a lodging is in appearance salubrious or otherwise tuberculosis spreads according to the number of occupants of the lodging and whether or no one of the inhabitants is tuberculous. Naegeli and others insist that latent tuberculosis exists in the majority of persons and only becomes active after reiterated infection, or what M. Paul Carnot calls "super-tuberculisation." Therefore it is in the overcrowded tenement or the domestic workshop where the sufferer from tuberculosis coughs and expectorates that the disease is conveyed to others. Poverty or home work brings about this promiscuity and hence is the primary cause. At Berlin, Dr. Kohn, out of 1868 cases found that 208 slept four in a room. At Mannheim, M. Marcuse, out of 529 cases, found that 79·9 per cent. of cases shared their bedrooms with others. In some cases there were seven people in one room and six patients slept with two other persons, making three people in one bed. On his side, M. G. H. Lemoire shows once again the danger of such promiscuity. Out of 165 cases, he ascertained that half these patients had been living for several years with tuberculous relatives; 37 per cent. slept in the same room. Then ten years ago Dr. Landouzy found 33·25 per cent. of cases of tuberculosis among hospital nurses who slept in the dormitory with their patients and 16·11 per cent. among the nurses who slept elsewhere. Dr. Romme concludes that the unhealthy dwelling where there is insufficiency of light and air does not in itself suffice to spread tuberculosis; it must also be overcrowded and this invariably occurs when there is a poor population. Thus the economic cause is the fundamental cause of the disease and this consideration does not apply merely to the labouring and working classes. It is especially evident in regard to underpaid and over-worked school teachers, shop assistants, and poor clerks. This is conclusively set forth by M. Gebhard[1] who shows that at Hamburg the death-rate from tuberculosis among persons whose income exceeds £175 per annum is equal to 10·7 per 10,000 per annum. On the other hand, where the income varies from £44 to £60 per annum the death-rate from tuberculosis is 39·3 per 10,000 per annum. Dr. Raths gives very similar figures for the towns of Frankfort, Munich, and Berlin, and Dr. Philipovitch for Vienna. Finally, at Paris there is an annual mortality from tuberculosis of 10·8 per 10,000 in the Champs Elysées, where the rents for apartments range from £360 to £480 per annum. On the other hand, in the very poor quarters of Grenelle and Plaisance the annual death-rate from tuberculosis is 104 per 10,000.

In the course of the discussion on this report a good deal was said about Russia where economic developments on modern lines have taken place very rapidly and within the last few years. Here also village industries are being obliterated by machinery and the new great factories built up with foreign capital in large towns. Consequently there is a similar migration from the rural districts. An instance was given where in the course of one year the demand for passports to leave the country for the town had increased from 11,000 to 43,000. Of course, tuberculosis increased in the towns in due proportion to the overcrowding caused by this migration. In Russia it was also increasing in rural districts, for the peasant and the soldier brought back to his native village the germs of tuberculosis which he had contracted while living in barracks or working in the great factories of the large towns. But here, again, it was poverty that forced the peasant to go to the town.

One speaker remarked that in some parts of France shepherds had learnt to embroider and were able to do this sort of work while watching their sheep. They were thus able to earn from fourpence to fivepence per day. But by working at these low rates and doing two sorts of work at

[1] Kongress zur Bekämpfung der Tuberkulosis, p. 81, Berlin, 1899.

one and the same time they reduced the wages paid to the women embroiderers who lived in the towns, and as the latter became poorer and poorer tuberculous disease was more frequent among them.

Professor MAXIMILIEN SERNBERG in a lengthy report explained that the economic factors of tuberculosis had been studied at Vienna. By statistics, attempts had been made to set forth the relations that existed between the prevalence of tuberculosis and the tax paid for inhabited dwellings, the proportion of illegitimate births, the smallness of tenements, and the lack or insufficiency of employment. He thought that the insufficiency of work and wage, rather than that of lodgings, was the more general cause of tuberculosis. As to the relations existing between the economic and bacteriological factors of tuberculosis these had not yet been sufficiently studied. The reporter concluded in favour of the creation of a new function, profession or specialty, that of social medicine and social therapeutics. The object would be to coördinate all the facts that relate to social etiology.

The Part Played by Sanatoriums and Dispensaries in the Struggle against Tuberculosis.

Dr. COURTOIS-SUFFIT and Dr. CHARLES LAUBRY (both of Paris) presented a report defining a sanatorium as a place where a triple method and discipline was applied—namely, the air cure, rest, and special diet—and this was done as a means of rendering the therapeutic treatment more effective. The sanatoriums were of necessity frequented almost exclusively by wealthy people. But as some very good results were obtained generous-minded persons desired to see these benefits extended to the poor. It did not follow, however, that what was of benefit to the rich would be equally advantageous to the poor. If, as had been said, tuberculosis was a social malady three months in a sanatorium would not obliterate the effects of life-long misery combined with inherited weakness. To check the progress of Koch's bacillus could be but an ephemeral advantage which might have evil consequences, for it might lead to a narrow-minded conception of a prophylaxis limited to the fear of contagion instead of large, generous conceptions based on social justice. The sanatorium, Dr. Courtois-Suffit and Dr. Laubry insisted, meant a restriction of therapeutic treatment and a weakening in the efforts of private charity and public assistance. The advantage was not a sufficient compensation. The sanatoriums for the rich should give a better result, yet Dettweiler, at Berlin, quoted statistics showing that after a period of from three to nine years only 10 per cent. of the patients were definitely cured. The popular sanatoriums were not likely to give better if as good results. The German statisticians were careful not to employ the word cure; they only spoke of "economic cures." This meant a capacity of returning to work for a variable but limited period of time. Other patients, however, besides those who went to sanatoriums were also often able to return to their work for a while; but there was not the same care taken to draw up statistics of such cases. At best the sanatoriums only prolonged life a little. If the money they cost was simply handed over to the patients so that they might go and live in the country and secure competent medical advice the result would probably be as good. Dr. Courtois-Suffit and Dr. Laubry insisted that the economic factor was the first factor and that the first fundamental step to be taken was to abolish starvation wages. The second factor was light and air, the sanitation that would sweep away narrow streets and overcrowded, unwholesome houses. Then third, and last, and least important, came the sanatoriums, and these not by themselves but only as part of a vast system of dealing with the disease. In regard to the dispensary system all agreed in taking the dispensary established at Lille by Dr. Calmette as a model but opinion was also unanimous that it was too costly. A hundred families were assisted but this cost £2880 per annum. Then by the side of this model but extravagant dispensary there were all kinds of pseudo-dispensaries, some of them instituted merely for the purposes of advertisement. An antituberculous dispensary should be a place where not only medical advice and medicines were given but where a large staff of willing workers would follow the patient to his home, see that he lived under sanitary conditions, and if this was financially impossible then strive to obtain for him the financial assistance needed. Indeed, at the dispensary as elsewhere, the medical aid was the easiest to obtain, the cheapest, and the least important. Such, in any case, was the nature of the work done at Dr. Calmette's dispensary. At Lille large employers were asked to send to the dispensary any workmen whom they suspected of tuberculosis. The patient and all his family were taken in hand and medicine, clothes, food, change of lodging, and all and everything needed were provided.

Dr. SOPHUS BANG, chief physician at the Silkeborg Sanatorium in Denmark, challenged in his report the trustworthiness of the German statistics. Even though tuberculin was largely employed, the experimental injection of plain water produced a psychic reaction that simulated the reaction due to the presence of latent tuberculosis. Therefore the symptoms noticed on administering tuberculin might sometimes be due to "suggestion" and not to the presence of tubercles. Then latent cases often remained passive for ten years or more. So long as there was no test that would distinguish passive from active tuberculosis there only remained clinical observations, and statistics mixing suspicious cases with cases about which there was no doubt were of little or no value. In Germany there were 71 per cent. of economic cures, of which only 31 per cent. held good after five years. But how many of these 31 per cent. were passive cases which would have been cured spontaneously with or without the aid of sanatorium treatment? Nevertheless, since the sanatorium was proved to be of use to the rich, it was likely to be even more useful to the poor. The poor got what they did not obtain at home—good sanitation, good food, good air, plenty of rest, and freedom from anxiety. Therefore the State gave subventions to the sanatoriums and there was actually in Denmark one bed for every 3000 of the population. For France to be equally well provided it would be necessary to construct 125 sanatoriums of 100 beds each. Also the treatment in Denmark was much longer, six months rather than three months, and the results—to judge from the statistics—were very good.

The third and last report was by M. EMILE BECO, General Secretary at the Ministry of Agriculture, Brussels. For Belgium there was not much to be said, as there existed only 19 antituberculous dispensaries, of which 17 were due to private initiative. They only cost in all £2400 to establish and the working expenses for 1904 amounted to but £5000. About 2000 patients were treated. The chief work of the dispensaries was educational together with the discovery of cases so as to persuade patients to submit to proper treatment and to take efficient precautions not to spread the disease. Then there were the great popular sanatorium for the province of Liége at Borgoumont, a private sanatorium to be opened shortly at La Halpe, and a military sanatorium. M. Beco thought that more should be done to prevent the disease by better sanitation and better accommodation. In hospitals tuberculous patients should never be put in the ordinary wards. He also urged that every form of benefit society or insurance ought to be encouraged. Though sanatoriums were useful, still the better housing of the poor would remain the principal and most fertile means of combating the disease.

After these reports had been received the discussion began.

M. RÉNON, member of the French Senate, said that he disagreed completely with Dr. Courtois-Suffit in regard to the prophylactic action of antituberculous dispensaries. He had recently visited Dr. Malvoz's dispensary at Liége. They did real detective work. Thus a woman was discovered coughing over the vegetables of her stall at the market. She was induced to go to the dispensary and was there seen to be suffering from pulmonary tuberculosis. It was explained that she was infecting the vegetables which she sold and means were found to give her proper treatment and to protect the public against this danger. At the Liége dispensary about 800 cases were attended to in the course of the year and yet the cost was only £800.

Mademoiselle CHAPTAL, who has founded a dispensary in the Plaisance which is the worst quarter of Paris, protested that the expense at Dr. Calmette's dispensary should not be used as an argument. With but £480 they had been able to help 1200 persons in the Plaisance quarter. Their little shop, which served as a dispensary, cost them £200 a year. Their lay helpers went among the poor, taught them how to furnish their rooms, and called upon the authorities to disinfect gratuitously where necessary and to enforce sanitary improvement. The local death-rate from tuberculosis was decreasing in response to their efforts.

Dr. DEWEZ (Mons), President of the Belgian League against Tuberculosis, insisted that the principal purport of dispensaries was to hunt out cases and then to instruct the

patients. The neighbours soon got alarmed and they helped to watch and to see that the patient carried out his instructions. Then the men who had been sent to the popular sanatorium of Borgoumont were all excellent propagandists. They were better than the medical practitioners for they spoke to the people in the people's language and served as a living example of what could be done. The dispensary had to continue the work of the sanatorium. The speaker protested that the only object should be to do good instead of merely advocating national methods or the theories of some particular school. Doubtless Dr. Calmette had spent much money, but then he had been the first to move and his costly experience had served as a model for others to improve upon, at least financially speaking.

Dr. BOUREILLE (Paris) described the work of the dispensary of the Boulevard Garibaldi, which in the main consisted in visiting and improving the homes of the patients. Such institutions might be called "preventoriums." They had a great work to perform as intermediaries between the law and the poor. There were laws against insanitary conditions and against overwork, but these laws were often disregarded. The "preventorium" should be as much a legal enforcement and social reform as a medical institution. Their business was to act as informers—necessary informers—and to be in constant communication with the sanitary police and factory inspectors. Intelligent workmen should be enrolled on the staff of the "preventoriums," as they were of great use in finding out cases of disease or of infringement of the sanitary and factory laws. The speaker concluded that with the living wage, the eight-hours day, and the gendarmes in the workshops to see that the laws were really applied, they might hope to overcome even such a disease as tuberculosis.

Dr. SAVOIRE described the action of the dispensary founded by M. Jacques Siegfried and Dr. Albert Robin. The dispensary was worked in connexion with the Beaujon Hospital, where the worst cases were sent. It attended to cases that came out of hospitals or sanatoriums and to cases that had not been sent to such institutions. It had instituted so elaborate a system of exchange of services that, what with the aid of charity and gratuitous work, the expenses had been reduced to a minimum. The only criticism that could be made was that its success depended on the skill, the devotion, and the charity of its promoters.

Dr. KAYSERLING, general secretary of the Berlin poor relief organisation, urged that it was important to see that the infected did not become infectious. Efforts must be made to cure them before the infectious stage came on. Then they must watch over their families and protect them. This service was organised by the Central German Committee. They had to see that the rules were strictly carried out in the privacy of individual homes. For this purpose they had appointed at Berlin nine sisters whose sole mission it was to attend to tuberculous cases. They called frequently at the private dwellings of the patients and last year had made 4866 such visits. They gave food where necessary and to prevent others sleeping with patients had also given 186 beds. Then if the tenement was overcrowded they paid the increase of rent necessary to get one more room. This generally meant from 8*s.* to 10*s.* a month. The sister watched those who were likely to be contaminated and of these last year 227 had been selected and sent for observation to an air-cure station. Then 214 children were sent to sanatoriums and some 500 were sent to the country for six or eight weeks after they had left the sanatoriums. The hopeless cases were not neglected because they were hopeless; the sisters called and did all that was possible to soften their last days and 176 patients had been sent to hospitals. All means were useful, though it would never have been possible to do all this necessary work but for the law on compulsory insurance. In Germany all had a right to relief; it was no favour and no humiliation. But as there were not yet sufficient sanatoriums some patients had to wait six or seven months before they could be admitted. The fact that they were so sought after proved their usefulness. If they did no good, why should they be so popular? An attempt to close them in Germany would be enough to provoke a revolution. Dr. Kayserling concluded by saying that this was called the social century because more had been done for social reform than at any previous period and the Germans gloried in having done their share to win for this century so excellent a title.

Dr. R. W. PHILIP (Edinburgh) thought that an exaggerated conception of the use of sanatoriums had been created and now there was a reaction. But sanatoriums were useful if taken in conjunction with other institutions which should be grouped together and should form a separate branch of the public health services.

Dr. ROMME maintained that there was no better method of treatment known than that of the sanatorium. That sanatoriums were costly was not a sufficient reason for their condemnation. Then it was thought that philanthropy could do all that was needed. This was manifestly absurd. Of course, it was only by means of compulsory insurance that anything beyond mere tinkering with the question could be attempted. It had been said that only by sweeping social reforms could the entire condition of the proletariat be altered but such assertions were not a condemnation of sanatoriums. There was such a thing as dealing with the symptoms as well as removing the causes, and the sanatorium remained, with all its failures, the best remedial agent at their disposal.

Dr. SCHRÖTTER (Vienna) agreed that there was nothing better than the sanatoriums and even if it was found that tuberculosis could be cured by injections the sanatoriums could be employed for many other useful purposes.

Several German speakers, notably Dr. BIELEFELT (Berlin), defended the trustworthiness of the German statistics, describing the precautions taken to prevent errors in diagnosis. They pointed out also that the advantage of compulsory insurance was that medical advice was sought too soon rather than too late, and that consequently the death-rate was still falling.

Dr. SCHMIDT, chief of the Sanitary Bureau of the Swiss Confederation, said that in Switzerland they had one sanatorium bed for every 4000 of the population. Of the patients, 71 per cent. were restored to their full working capacity, and after five years 43 per cent. still retained this capacity.

Dr. ARMAINGAUD (Bordeaux) thought that sanatoriums were in their proper place, not as *the* means of combating tuberculosis but as *a* means.

Dr. SAVOIRE admitted that sanatoriums might be useful though not indispensable. The sanatorium was not "a weapon of social defence" and though charity might prolong a few lives that was of but little consequence. Their object was to influence the whole population. Before sanatoriums were built there were patients who continued to work. He could not accept the term economic cure and was not satisfied because a patient managed to earn a third of the usual wage in his trade and district. Patients could not be cured in three months. The patient as he left the sanatorium must be protected against a return to the very sort of life that produced the disease. The cost all this entailed must be reduced by taking action wherever masses of people collected together, in factories, mills, offices, &c.; in other words, by preventive sanitary measures.

Dr. BARTH (France) said that it was very well for Frenchmen to discuss but after all their debates were but theoretical. Practically speaking, there were no sanatoriums in France. What existed were but experiments; nothing had been done on a national scale. This existed only in Germany. In any case, everyone admitted it was absolutely wrong to send tuberculous patients to the often overcrowded ordinary hospitals. At the Bligny sanatorium the tuberculous patient, though in the enjoyment of luxuries that had been criticised, only costs 4 francs 30 centimes per day. At a Paris hospital, perhaps on a stretcher between two beds, he cost 3 francs 40 centimes—only 80 centimes, or 8*d.*, a day cheaper than at a beautiful sanatorium where he learnt that which made him a centre of education when he returned to ordinary life. This was no time for the advocates of sanatoriums and of dispensaries to throw stones at each other.

M. BECO, with admirable tact, modified the wording of the numerous motions submitted so as to weld them together. He managed to bridge over many difficulties and after a good deal of conversation and personal negotiations, together with several more speeches, the following motion was carried with practical unanimity. Three hands were raised against the first clause but there was little or no opposition to the remainder. The object was to conciliate all parties and this may be considered as having been achieved. The motion is worded as follows:—

1. It is permissible to discuss to what degree dispensaries and sanatoriums are useful or necessary according to the customs, the institutions, and resources of each country, but the principle involved must be recognised.

2. They constitute a means of action which cannot be considered either as exclusive or predominant; dispensaries open to all have for their essential objective prophylaxy, hygienic education, and the relief

of distress. They can also become a valuable source of information. The popular sanatoriums are establishments reserved for in-patients suffering from pulmonary tuberculosis, who are susceptible of permanent cure or a durable amelioration; they are likewise instruments of prophylaxy and education. But the problem of sanitary dwellings will always dominate the prophylaxy of tuberculosis.

3. It is important that the functions of these establishments should, as far as possible and while not infringing their freedom and their autonomy, be made to work in harmony with a general scheme. They can only benefit by being connected one with another and by being placed in relation with allied institutions such as public health and benefit societies.

4. As desiderata to be realised at the same time as the development of dispensaries and sanatoriums the Congress would urge the necessity of certain reforms: (a) That poor relief should assume a more preventive character and take a more active part in promoting good sanitation. (b) That friendly societies should also endeavour to exercise a direct action in bringing about a more rational application of precautionary and sanitary measures.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on Oct. 26th, Sir R. DOUGLAS POWELL, Bart., K.C.V.O., the President, being in the chair.

It was announced that Mr. Eric A. C. Fazan, late of Epsom College, now student at Middlesex Hospital, had been nominated as the Junks Memorial Scholar for the year.

The following gentlemen having passed the required examination were admitted as Members of the College:—Joseph George Harsant, M.D. Lond., Ernest Bosdin Leech, M.A., M.B. Cantab., L.R.C.P. Lond., and John Cyril Holdich Leicester, M.D. Lond., L.R.C.P. Lond., I.M.S.

Licences to practise physic were granted to 113 gentlemen who had passed the necessary examinations.

The following communications were received:—1. From the clerk to the Privy Council, August 2nd, announcing the appointment of Dr. H. Lewis Jones, on the nomination of the College, to represent His Majesty's Government at the International Congress in Physico-Therapeutics at Liége in August last. 2. From the same, August 2nd, inviting the College to nominate a Fellow to represent His Majesty's Government at the International Congress on Tuberculosis at Paris, Oct. 2nd to 7th, 1905. Dr. Theodore Williams had been nominated. 3. From the same, August 29th, announcing the postponement for a year of the International Congress on Gynæcology at St. Petersburg, fixed for September last. 4. From the secretary of the Royal College of Surgeons of England, regarding certain proceedings of its Council on July 27th last. 5. From the Dean of the Faculty of Medicine, University of Edinburgh, announcing the award of the Murchison scholarship to Mr. John Pool McGowan, M.A., M.B. Edin.

The audited accounts for the year ending Sept. 29th last were received and adopted. The quarterly report of the finance committee was received and adopted.

The REGISTRAR (Dr. E. LIVEING) proposed that a committee of College officers should be appointed to prepare a revised edition of the College By-laws, the last being out of print. The proposal was adopted and the PRESIDENT nominated the following officers to serve on the committee: the treasurer (Sir Dyce Duckworth), the senior Censor (Dr. J. F. Payne), the Registrar, Dr. W. H. Allchin, and the assistant registrar (Dr. Oswald A. Browne).

A report was received from the visitors appointed by the two Colleges to report upon the course of study and upon examinations in tropical medicine. In respect to this matter an invitation was received from the Royal College of Surgeons of England inviting the Royal College of Physicians of London to appoint delegates to confer on the report of the visitors. The invitation was accepted and it was left to the President to nominate Fellows to act as delegates.

A report was received from the committee of management dated Oct. 9th. One of the recommendations contained in the report was that the West Ham hospitals for infectious diseases, consisting of the Plaistow fever hospital, containing 210 beds, and the Dagenham small-pox hospital, containing 450 beds, should be added to the list of fever hospitals recognised by the Examining Board in England.

Dr. Liveing was re-elected a member of the committee of management. Sir William S. Church, Bart., K.C.B., was re-elected a representative of the College on the Council of University College, Bristol. Dr. P. H. Pye-Smith was re-elected a member of the executive committee of the Imperial Cancer Research Fund.

A list of books and other publications presented to the library during the past quarter was received and the thanks of the College were ordered to be given to the donors. The Harveian librarian (Dr. J. F. PAYNE) drew special attention to the gifts of Professor W. Osler, Mr. Harper, and Dr. W. Colman.

After some further formal business the PRESIDENT dissolved the Comitia.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at 6, Suffolk-street, Pall Mall, London, S.W., on Oct. 26th, Dr. F. H. CHAMPNEYS being in the chair.

An animated and somewhat heated discussion took place at this meeting. Dr. James Wallace of 7, Elmwood-gardens, Acton Hill, London, was the cause of the sharp debate by reason of the fact that he wrote a letter asking the Board what signification was to be attached to the words "under my supervision" in one of the certificates required by candidates before admission to examination for midwives. The words occur in Form III. in the schedule of the rules of the Central Midwives Board. The certificate in this form is as follows:—

> I certify that —— (to whom this certificate refers) has, under my supervision, attended and watched the progress of not fewer than 20 labours, making abdominal and vaginal examinations during the course of labour, and personally delivering the patient.

Mr. E. PARKER YOUNG considered that the responsibility in regard to the signing of such certificate rested with the person who signed it and that that person must be prepared afterwards to accept the obligations incurred. The medical man must be satisfied that the rules of the Board had been complied with by the candidate. It was worse than useless to interpret the rules so that they could not be carried out. If the medical man signing the certificate was not present when the confinements took place he would have satisfied himself that the rules had been complied with by asking questions of the pupil and examining her note-book when he visited the patient. The medical man must be trusted to ascertain that the details required by the rule had been carried out.

Dr. W. R. DAKIN could not understand how anyone could sign the certificate unless present to see the conditions complied with. The rule must be interpreted literally, otherwise what was the use of having the rules. In his opinion the person signing the certificate should be the responsible attendant on the case. No one was competent to sign the certificate who had not been present while the candidate was complying with the terms of the rules.

Sir WILLIAM J. SINCLAIR said that the rules should be insisted upon and medical men should be discouraged from attending such cases. The idea of the rule was to provide clinical teaching for the pupils and how was that to be given if the medical attendant came next day? How could the pupil be supervised under such arrangement? The Board could not be too strict in the matter.

On the suggestion of Mr. PARKER YOUNG, it was decided to send a reply to Dr. Wallace stating that the responsibility of complying with the rule rested upon the person who signed the certificate.

There was an application made to the Board from Dr. W. Williams, the county medical officer of Glamorgan, for the rules of the Board to be printed in Welsh, but no definite answer was made to this because the County Council Association has not yet furnished the Central Midwives Board with some necessary information concerning this matter.

An opportunity was afforded to the Board of disapproving in strong terms of the practice of midwives putting letters after their names. The question arose on the reading of a letter from the general secretary of the Medical Defence Union asking the opinion of the Board as to the right of a certified midwife to affix the letters C.M.B. to her name on a card.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.—The following scholarships have been awarded: Entrance scholarship, £30 10s., to Miss G. M. Dobrashiam; St. Dunstan's medical exhibition, value £60 a year for three or five years, to Miss H. M. Hood-Barrs; and Mabel Webb research scholarship, value £30 a year, to Miss L. Woodcock, M.D.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8137 births and 4422 deaths were registered during the week ending Oct. 28th. The annual rate of mortality in these towns, which had been 13·5, 13·7, and 14·1 per 1000 in the three preceding weeks, further rose to 14·8 per 1000 last week. In London the death-rate was 15·9 per 1000, while it averaged 14·3 per 1000 in the 75 other large towns. The lowest death-rates in these towns were 3·7 in Hornsey, 5·1 in Handsworth (Staffs.), 6·1 in Grimsby, 7·6 in Walthamstow, 8·5 in Tottenham, 8·6 in Hastings, 9·0 in Stockton-on-Tees, 9·1 in Leyton, 9·4 in Derby, and 9·5 in Barrow-in-Furness; the highest rates were 18·0 in Middlesbrough, 18·1 in Newcastle-on-Tyne, 18·3 in West Hartlepool, 18·4 in Plymouth, 19·2 in Liverpool and in Blackburn, 19·5 in Nottingham, 20·4 in Wolverhampton, and 22·6 in Hanley. The 4422 deaths in these towns last week included 354 which were referred to the principal infectious diseases, against 447, 376, and 343 in the three preceding weeks; of these 354 deaths, 114 resulted from diarrhœa, 72 from measles, 52 from scarlet fever, 42 from diphtheria, 40 from whooping-cough, and 34 from "fever" (principally enteric), but not any from small-pox. In Brighton, Norwich, Walsall, Aston Manor, Derby, Stockport, and in 11 other smaller towns no death from any of the principal infectious diseases was registered; while they caused the highest death-rates in Willesden, West Ham, Wolverhampton, King's Norton, Bootle, Huddersfield, Middlesbrough, Swansea, and Rhondda. The greatest proportional mortality from measles occurred in Willesden, Wolverhampton, King's Norton, Rhondda, and Swansea; from scarlet fever in Bootle and West Hartlepool; from diphtheria in Reading and St. Helen's; from whooping-cough in Smethwick; from "fever" in Bury and Middlesbrough; and from diarrhœa in Hanley, Wallasey, Bolton, Huddersfield, Middlesbrough, Tynemouth, and Merthyr Tydfil. No deaths from small-pox were registered last week in any of the 76 towns; and no small-pox patients were under treatment in the Metropolitan Asylums Hospitals. The number of scarlet fever cases in these hospitals and in the London Fever Hospital on Saturday last, Oct. 28th, was 4222, against 3789, 3954, and 4153 on the three preceding Saturdays; 506 new cases were admitted during the week, against 527, 511, and 522 in the three preceding weeks. The deaths in London referred to pneumonia and diseases of the respiratory system, which had been 152, 191, and 248 in the three preceding weeks, further rose to 286 last week but were three below the number in the corresponding period of last year. The causes of 59, or 1·3 per cent., of the deaths in these 76 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Leicester, Salford, Leeds, Newcastle-on-Tyne, Cardiff, and 42 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Nottingham, Liverpool, Bootle, Manchester, Hull, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 14·9, 16·3, and 16·3 per 1000 in the three preceding weeks, further rose to 18·7 per 1000 during the week ending Oct. 28th, and was 3·9 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 14·1 in Leith and 14·3 in Aberdeen to 22·9 in Dundee and 26·2 in Paisley. The 626 deaths in these towns included 19 which were referred to measles, 17 to diarrhœa, nine to whooping-cough, six to diphtheria, and three to "fever," but not any to small-pox or scarlet fever. In all, 54 deaths resulted from these principal infectious diseases last week, against 58, 55, and 75 in the three preceding weeks. These 54 deaths were equal to an annual rate of 1·6 per 1000, which was 0·4 per 1000 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of measles, which had been seven, ten, and 22 in the three preceding weeks, declined again last week to 19, of which 13 occurred in Glasgow and five in Dundee. The deaths from diarrhœa, which had been 37, 23, and 29 in the three preceding weeks, decreased to 17 last week and included seven in Glasgow, four in Edinburgh, three in Leith, and two in Aberdeen. The fatal cases of whooping-cough, which had been eight in each of the two preceding weeks, rose last week to nine, of which six were registered in Glasgow. The deaths from diphtheria, which had been three, eight, and seven in the three preceding weeks, further declined to six last week and included two in Glasgow and two in Edinburgh. The fatal cases of "fever," which had been four, five, and two in the three preceding weeks, rose again to three last week. The deaths referred to diseases of the respiratory organs in these towns, which had been 65, 106, and 108 in the three preceding weeks, further increased last week to 152, and were 44 in excess of the number in the corresponding period of last year. The causes of 21, or more than 3 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·3 per 1000 in each of the two preceding weeks, declined to 17·9 per 1000 during the week ending Oct. 28th. During the past four weeks the death-rate has averaged 18·6 per 1000, the rates during the same period being 14·5 in London and 16·3 in Edinburgh. The 130 deaths of persons belonging to Dublin registered during the week under notice were three below the number in the preceding week, and included seven which were referred to the principal infectious diseases, against three, five, and seven in the three preceding weeks; of these, three resulted from diarrhœa, two from whooping-cough, one from measles, and one from scarlet fever, but not any from small-pox, diphtheria, or "fever." These seven deaths were equal to an annual rate of 1·0 per 1000, the death-rates last week from the principal infectious diseases being 1·1 in London and 0·9 in Edinburgh. The fatal cases of diarrhœa, which had been one, four, and one in the three preceding weeks, rose again to three last week. The 130 deaths in Dublin last week included 23 among children under one year of age and 43 of persons aged 60 years and upwards; the deaths both of infants and of elderly persons were slightly in excess of the respective numbers recorded in the preceding week. Six inquest cases and six deaths from violence were registered; and 56, or more than two-fifths, of the deaths occurred in public institutions. The causes of six, or nearly 5 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

The following appointments are notified:—Fleet Surgeon G. A. Waters to the *Ramillies*. Staff Surgeon E. T. Meagher to the *President* for three months' course at West London Hospital.

ROYAL ARMY MEDICAL CORPS.

Major J. Thomson, from Edinburgh, is appointed for temporary duty at the War Office. Major H. C. French joins at Woolwich. Major C. C. Fleming, D.S.O., is posted to Glasgow for duty as a temporary measure, from the date of handing over the duties of Adjutant, Glasgow Companies, R.A.M.C. (Vols.)

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant-Colonel Alfred Lingard having resigned his commission in the Volunteers, ceases to belong to the Army Medical Reserve of Officers (dated Oct. 28th, 1905).

THE ROYAL NAVY LIST.

Year by year, or rather quarter by quarter, for this publication is issued every three months, the Royal Navy List grows in size and increases in scope, the information given being almost encyclopædic in its range. No better book of reference relating to the *personnel* of the navy, both active and retired, and the ships of the fleet has yet been issued, while the collateral matters dealt with are of the greatest interest and usefulness. Among the many important features of the work is the "Current History of the Royal Navy," a chronological list of notable naval events dating from the beginning of the thirteenth century, the Commission of Ships, and the Bibliography of Naval Literature. This latter department of the Navy List will be welcome to

all members of the service and to the public alike. The bibliography includes books of reference, military history, civil history (technology and so forth), biography, voyages and fiction, periodical publications, reviews, and notices. For convenience of reference the plan upon which the book is arranged is admirable and all members of our first line of defence, all public men, and indeed every one who is in any way brought into touch with the Royal Navy, will welcome this book of reference. The present issue, dated October, 1905, contains a special list of "appointments, promotions, and retirements, &c., since going to press," which bears date as late as Oct. 3rd. Messrs. Witherby and Co., of Holborn, W.C., and Newman's-court, Cornhill, E.C., London, are the publishers, and the price is 10*s*.

ARMY MEDICAL SERVICE EXAMINATION.

An examination of candidates for not less than 40 commissions in the Royal Army Medical Corps will be held on Jan. 26th, 1906, and following days. Applications to compete should be made to the Secretary, War Office, 68, Victoria-street, London, S.W., not later than Jan. 16th, on which date the lists will be closed. Candidates who are over the regulated limit of age at the date of the examination will be permitted to deduct from their actual age any period of service in the field after Oct. 1st, 1899, that they could reckon towards retired pay and gratuity, if such deduction will bring them within the age limit. The presence of candidates will be required in London from Jan. 24th.

MASSAGE.

The Incorporated Society of Trained Masseuses having been applied to by the War Office to organise an examination of nursing orderlies of the Royal Army Medical Corps in massage, an examination was held on Sept. 29th at Netley Hospital, when 17 candidates satisfied the examiners. Now that the powers of the society have been extended by the Board of Trade to meet this application it has been arranged that the examination will in future be held twice yearly at Millbank.

A RUSSIAN MEDICAL WAR FUND.

At the beginning of the Russo-Japanese war a fund was established by Russian medical men consisting of a contribution of one rouble per month per contributor for the benefit of themselves and their families in case of need during the war. While the question is being debated how long the fund should now remain open it is stated in the *Novosti* that the total sum accumulated amounts to 17,000 roubles.

Correspondence.

"Audi alteram partem."

THE PRESENT STATE OF MEDICAL PRACTICE IN THE RHONDDA VALLEY.

To the Editors of THE LANCET.

SIRS,—I have read the letters of the private practitioners on the above subject but have seen no information from the other side and thought perhaps a typical case might be interesting. I am surgeon to a colliery of about 750 men, the poundage is deducted at the office and paid direct to me, and I provide a qualified assistant, drugs, conveyance, &c. The men elect a committee and any collier feeling himself neglected in treatment has power to call a meeting at which I am asked to attend so that the matter can be discussed and any grievance attended to and put right. The officials pay the same poundage and get the same treatment as the rest, no preference being shown. I have always tried to do my duty without fear or favour and must say I have always met with respect from the smallest door-boy upwards. The colliers subscribe to hospitals and if any of my patients doubt my skill they are encouraged to get a second opinion either from the hospital or from any practitioner in consultation. It is a known fact that in a large district an angel from heaven would not please some people and it is only fair that this class of individual should pay for his treatment if he calls in a private practitioner. In this district a man wishing to come in offered to give free treatment to the ministers and their families if they used their influence with their congregations in his behalf; I am glad to say nothing came of this unworthy effort.

I cover a certain amount of ground every day and always make it a rule to see my patients in rotation with the assistant, so that the cases are always under my own eye, and if I am persuaded a case is in any way urgent a visit is always paid. I am surprised at the implied insult to the assistant, for in a court of law his status would be as good as "Private Practitioner's." I am as careful as possible in choosing my deputy (I consider this the better term), treat him as a qualified gentleman, and have tried and I think have succeeded in teaching the same to most of the patients. The letter of "Private Practitioner" appears to me a matter of "sour grapes." I do not mix myself up with municipal and other like matters, as I cannot afford the time and my private practice is small. I think the reason people do not pay small bills for treatment is that they are aware that a medical man does not care to appear in the county-court and so they take advantage of the situation. After six years of hard work in this district I am assured that the above is the best way to work a colliery practice in the interest of both the surgeon and the man.

I am, Sirs, yours faithfully,

Pontnewydd, Oct. 23th, 1905. ALFRED W. HAYLES

To the Editors of THE LANCET.

SIRS,—In "Wales and Western Counties Notes" in THE LANCET of Oct. 28th, p. 1294, with reference to colliery surgeons in the Rhondda Valley, your correspondent states: "It is a little striking that the Cwm Park colliers should have come to this decision, for they live within a couple of miles or so of Treherbert where the 'fixed salary principle' has been in operation for a year or two." Allow me to point out that this statement is not correct, as the fixed salary scheme does not exist, nor has it ever existed, in Treherbert.

I may state, however, that about 15 months ago such a scheme was adopted higher up the valley—namely, in the Blaen Rhondda Collieries—but was abandoned after three months' trial as ineffective, the "poundage" system being again introduced. Moreover, the men engaged in the Treherbert Collieries decided unanimously not to ballot on the present question, being perfectly satisfied with the existing "poundage" system. Before dismissing this subject I should like to make a few remarks in reply to a correspondent signing himself "Another Private Practitioner." In no collieries in South Wales do the proprietors appoint medical officers, all such being appointed by a ballot of the workmen. In addition the men are represented by a committee (elected from among themselves, not officials) whose duty it is to look after the welfare of their fellow workers and consider any complaint which may be made against the medical officer or his assistants. In conclusion, I may say that the workmen in each individual colliery have power through their committee to give notice and terminate contracts with their medical officers should they be dissatisfied with them.—I am, Sirs, yours faithfully,

D. C. WILLIAMS
Medical Officer to the Ynysfair Collieries.

Treherbert, Oct. 30th, 1905.

To the Editors of THE LANCET.

SIRS,—Having had two months' experience as locumtenent for a friend in the Rhondda Valley I read the letter of "Another Private Practitioner" in your issue of Oct. 28th with interest. I would suggest the following remedies: 1. Let the medical profession combine, refuse poundage and the 1*s*. per month as now paid; fix a minimum charge of 2*s*. 6*d*. for consultation and medicine at the surgery, and 5*s*. for visit and medicine at patients' homes (ready money of course); accidents, fractures, and amputations to be paid for by the employers. 2. Close, at least, two-thirds of the public-houses in the district; they are a source of great evil. 3. Request other doctors not to apply for appointments for at least a year after the adoption of this scheme.

Under the present system a medical man is sweated to death and is at the beck and call of everyone at all hours of the day and night. A collier at the present time earns from £3 to £4 per week and gets his medical attendance for self and family for 1*s*. a month or so. Why, Sirs, a man who runs a 6*d*. dispensary in the East-end of London has a much better time than the medical officer to a colliery. I know several men who have been assistants in the Rhondda and all say they would not return there for treble the salary they got. Let the Rhondda medical men consider this scheme,

unite, and put it in working order and it will bring the colliers to their senses in less than six months' time.

I am, Sirs, yours faithfully,

Oct. 31st, 1905. A RETIRED PRACTITIONER.

To the Editors of THE LANCET.

SIRS,—I cannot, like "Another Private Practitioner," express surprise at the non-action of the increasing number of so-called ethical committees, but rather express my surprise that they should take the name "ethical" instead of "trade union." As far as I am able to ascertain these committees, at least in South Wales, devote their whole time and energy to the advocacy of "trade union" principles and leave entirely untouched the ethics for which they presumably exist. If any members of these committees require food for consideration they only require to open their eyes and look round them. Trade unionism is all very good in its place and under its correct name, but it is altogether out of place under the name "ethical." I cannot see that the "remedy" for the present evil suggested by your correspondent is a remedy at all; it is nothing more or less than the workmen's "scheme" glorified. Instead of the medical man being dictated to by a committee of workmen he suggests that he should be dictated to by a committee consisting of two-thirds workmen and one-third colliery officials. He has obviously had considerable experience of medical practice in the Rhondda, so that he will know who and what "colliery officials" are. As far as I know them the majority are simply colliers paid by the management—in short, glorified colliers. I agree with your correspondent that "touting" would be, and is, practised by a certain section of the profession, but to say that my suggestion is no remedy because it lends itself to "touting" is to say that private practice anywhere and everywhere does the same thing. That "touting" is practised all over the country to a greater or lesser extent we all know, but this is not the fault of the system—it is the fault of the men who do it.

In South Wales the men who would "tout" to increase their *clientèle* if the colliers were given the "open door" principle are a decreasing number, and with the introduction of men having the honour of their profession more at heart would decrease still further. The men who practise "touting" are practically all men who for years before qualifying have been employed as unqualified assistants and in that capacity acquired a profound knowledge of the art. A few of them remain, as thorns in the flesh, but their number steadily decreases and in the course of time they will be merely a matter of history. To suggest, as your correspondent does, that all medical men would adopt this method is a libel on the profession. Personally I believe that, with the exception of the class I have mentioned above, very few men would degrade themselves in this manner. An ethical committee having for its object ethics and not trade unionism would soon put a stop to "touting" by rigorously prosecuting every man attempting it. I maintain that the collier has as much right to freedom in the choice of a medical man as anyone else has and the establishment of committees to control the action of the medical man is as bad for the patient as for the doctor.

I am, Sirs, yours faithfully,

Oct. 30th, 1905. THE WRITER OF THE ARTICLE.

VARICOCELE—WHAT OF IT?

To the Editors of THE LANCET.

SIRS,—In connexion with the correspondence on the above subject the following case may be of interest. Whilst engaged in general practice some two years ago I was consulted by a gentleman, aged 34 years, with reference to a rather large varicocele. This usually gave rise to no discomfort, but occasionally the patient suffered from a sensation of weight in the scrotum with a considerable amount of dragging pain so great as to render walking almost prohibitive. He informed me that he only noticed these symptoms after abstinence from sexual intercourse for a period of about three weeks and after having connexion with his wife they entirely ceased. If this patient had been unmarried I should have operated upon his varicocele; in the circumstances I advised that no operative interference should be undertaken.

I am, Sirs, yours faithfully,

FREDK. A. MILLS, M.B., B.C. Cantab.

Margaret-street, W., Oct. 29th, 1905.

*** We desire to explain that Major F. J. W. Porter, R.A.M.C., who sent an interesting communication on this subject to us last week, was not responsible for the addition of the letters D.S.O. to his signature. The communication reached us in the form of an article or note and the "reader" in altering it into the form of a letter, so that it might go in its proper place, inadvertently included the letters D.S.O., which of course were quite correctly given after the name in our Contents page.—ED. L.

SANATORIUMS AND THE ERADICATION OF CONSUMPTION.

To the Editors of THE LANCET.

SIRS,—As a contribution to the discussion taking place in THE LANCET on this subject I would venture to repeat the suggestion already published by me[1] that to secure the best results sanatoriums should be worked as *adjuncts to urban hospitals*. We hear on all sides that it is necessary to get the cases early into the sanatorium and that at present neither doctors nor patients realise this truth, but it is also true that not every early case will benefit by sanatorium treatment. No one can tell without watching a case for a time how it will respond to treatment—whether rest, fresh air, and good food will cause subsidence of the acute symptoms or whether the case is one of those which in spite of rigorous care will run its rapid course to a fatal issue. Such early cases are the worst disappointments of a sanatorium.

If every case were treated for a few weeks in an urban general or special hospital such failures would be excluded. The city hospital should be a clearing house—sorting the cases, sending hopeless cases who cannot be properly cared for at home to an isolation hospital and those that show reasonable prospects of recovery to its sanatorium in the country. To some extent we carry out this plan at the Nottinghamshire Sanatorium in Sherwood Forest, many of whose patients have been in the General Hospital, Nottingham, and a similar course will, I suppose, be adopted at the Brompton and Mount Vernon hospitals. Every general hospital should be connected with a sanatorium.

I am, Sirs, yours faithfully,

Nottingham, Oct. 27th, 1905. W. B. RANSOM.

ETHYL CHLORIDE AS A GENERAL ANÆSTHETIC.

To the Editors of THE LANCET.

SIRS,—I can corroborate all that Mr. W. Pugin Thornton says in favour of ethyl chloride as a preliminary to the exhibition of ether and chloroform. Like Mr. Thornton I was operated on for gall-stones (on April 1st by Mr. W. H. Battle, the anæsthetist being Mr. H. C. Crouch). Like Mr. Thornton I was not in any state of fear; like him I am also a water drinker; and like him I did as I was told to do. The only difference between our respective experiences was that he only counted four inspirations, while I managed to count five. Ether and chloroform were subsequently used, as in his case. There was no struggling during anæsthesia and no vomiting after it.

So much for my experience as a patient; now for my experience as an operator. I find for tooth extraction that neither ethyl chloride nor somnoform is as pleasant or trustworthy in their after-effects as nitrous oxide, although the anæsthesia is more rapidly induced and more protracted than is ordinary gas anæsthesia. But while with the latter there is usually not even a headache, with the two former there are frequently headache and malaise for a day or two. For tooth extraction there is, in my opinion, nothing equal to nitrous oxide, the anæsthesia being prolonged, if necessary, by Paterson's process. The exception I would make is in the case of children, where a rapid induction of anæsthesia is often advisable. In these cases I have found ethyl chloride admirable.—I am, Sirs, yours faithfully,

WM. RUSHTON, L.D.S. Eng.

Harley-street, W., Oct. 27th, 1905.

[1] Brit. Med. Jour., Jan. 14th, 1905.

MEDICINE AND THE BAR.

To the Editors of THE LANCET.

SIRS,—I send you this chronological record of medical practitioners who have been called to the English Bar. I have also a few similar names of solicitors, of Irish barristers, and of graduates in Law. If any of your readers are able to amplify or to correct the appended list I should be very grateful. I am, Sirs, yours faithfully,

STANLEY B. ATKINSON,
Joint Honorary Secretary of the Medico-Legal Society.

10, Adelphi-terrace, W.C., October, 1905.

1763, Sylvester Douglas (Lord Glenbervie), *L.**
1790, Thomas Addis Emmet (Irish Bar).
1795, James Mackintosh (Kt.), *L.*
1811, Henry Bickersteth (Lord Langdale, M.R.), *I.*
1835, June, Charles Wilkins (Sjt.), *I.*
1837, Nov., Samuel Warren (Q.C.), *I.*
1854, Nov., Watkyn Williams (Mr. Justice), *I.*
1865, Nov., Edward Cooper Willis (K.C.), *I.*
1867, Nov., Robert Bannatyne Finlay (Kt., K.C.), *M.*
1872, Nov., Edward James Pollock, *I.*
1878, May, George Vere Benson, *M.*
1883, April, Arthur Dudley Parr-Dudley, *L.*
June, Horace Newbegin Watts, *L.*
1884, June, Thomas Faris, *I.*
John Percival Hunt, *L.*
1885, Nov., Charles Gross, *M.*
Cyril Lloyd Jones, *M.*
1886, May, S. A. K. Strahan, *M.*
1887, June, Henry Smith, *L.*
1888, April, William Robert Smith, *M.*
June, Henry Cooper Rose, *M.*
1889, July, Alexander Wynter Blyth, *L.*
Charles Meymott Tidy, *L.*
1890, Nov., Clifford Luxmoore Drew, *M.*
Bernard O'Connor, *G.*
Harry Walter Verdon, *M.*
1891, April, George Francis Pires, *M.*
Nov., George Eugene Yarrow, *G.*
1892, Jan., James Grierson Gledhill, *M.*
July, Josiah Oldfield, *L.*
Edward John Roche-Surrage, *M.*
1893, April, John Edwin Cooney, *M.*
June, H. S. Maurice, *L.*
George Herbert Pollard, *I.*
Derwent Hutton Ryder Waldron, *L.*
Walter Wickham, *M.*
Nov., Shaporji Aspanlarji Kapadia, *I.*
1894, Jan., Hugh Morgan Davidson, *M.*
Thomas Ernest Saunt, *L.*
April, William Jackson, *M.*
Henry Robert Oswald, *M.*
Nov., Norman Bruce Elliot, *M.*
Theodore Thomson, *M.*
1895, Jan., Ernest Henry Cartwright, *M.*
June, William McCallin, *I.*
1896, April, Sidney Reginald Dyer, *M.*
1896, April, William Murray Leslie, *M.*
Frederick Joseph Waldo, *M.*
June, Allan MacLean, *I.*
Nov. Frederick Charles Goodwin, *G.*
Major Greenwood, *L.*
1897, Jan., Richard Deane Sweeting, *G.*
William Owen Travis, *I.*
June, Samuel Fleming, *G.* and *M.*
John Patrick Walsh, *L.*
Nov., Charles Frederick Rumboll, *I.*
1898, June, Charles Williams Hayward, *G.*
1899, Jan., John Richmond Bryce, *I.*
April, Stanley Bean Atkinson, *I.*
June, George Russell Beardmore, *I.*
William Henry Coates, *I.*
Herbert Evelyn Crook, *M.*
Ludwig Freyberger, *M.*
Robert Lyall Guthrie, *M.*
Charles Porter, *G.*
1900, June, William Sellers, *M.*
Charles Henry Wise, *I.*
1901, June, Samuel Ingleby Oddie, *M.*
Arthur Hope Taylor, *M.*
Rowland Philip Williams, *G.*
Nov., George Fitzjames Darker, *M.*
1902, Jan., John Shives, *M.*
William Clunie Wise, *L.*
April, Thomas Fentem, *M.*
Edmund Thomas Whitaker, *I.*
June, George Herbert Coke, *M.*
John Henry Garrett, *M.*
Nov., George Chadwick Kingsbury, *M.*
Arthur Henry Thompson, *L.*
1903, May, James Henry Earis, *M.*
Frederick Harvey Norvill, *I.*
June, Edward Birchall Sherlock, *M.*
Daniel Lewis Thomas, *G.*
Nov., Thomas Hillier Chittenden, *I.*
Arthur Douglas Cowburn, *M.*
1904, Jan., Tom Eastham, *L.*
Lewis Lewis, *M.*
John Vernon Rees Roberts, *L.*
Donald George Sutherland, *M.*
April, Digby Cotes-Preedy, *I.*
1905, Jan., William Alfred Brend, *I.*
Ernest Hugh Snell, *M.*
Nowroji Merwanji Tarachand, *M.*
July, William Robert Bryett, *L.*
John Francis Butler-Hogan, *G.*
Harold Coates, *G.*
James Scott Tew, *I.*
Frederick Sherman Toogood, *M.*

* I., M., L., G., indicate the Inn of Court which "called."

EMPHYSEMA OCCURRING DURING PARTURITION.

To the Editors of THE LANCET.

SIRS,—In your issue of Oct. 28th Mr. F. H. Sprague describes a case of emphysema occurring during parturition. In this note, as in others reported from time to time, the statement is repeated that "the effusion of air into the connective tissue spaces is the result of rupture of some of the air vesicles of the lungs due to the excessive straining caused by the violent labour pains." Such an explanation may be true of a case when there are adhesions between the visceral and parietal pleuræ and breaking down of tissue from active disease. The air might then escape directly into the subcutaneous tissue of the chest wall and spread thence to the neck and face. But this must be very exceptional. As a matter of fact, emphysema usually occurs in robust and muscular subjects without any symptoms of past or present lung trouble and in these cases, if rupture of air vesicles were the primary lesion, the course the air would require to traverse before reaching the subcutaneous tissue of the neck would be as follows. Gaining the connective tissue of the lung the air would pass through the root of the lung into the connective tissue of the posterior wall of the thorax, upwards into the deep connective tissue of the neck, and then would have to break through the deep and superficial cervical fascia before reaching the situation in which it is ultimately found. This, as I have proved on the cadaver, is a physical impossibility. With a syringe the connective tissue of the lung can be infiltrated with air when the chest is opened and the lungs collapsed, but the air will not pass through the root of the lung nor through the fascia of the neck.

A much simpler explanation of this form of emphysema, and one which can be demonstrated on the cadaver to be feasible, is that the air gains access to the submucous tissue in the upper air passages, most commonly, I believe, at the lips, which have been bitten by the frenzied patient, and spreads over into the subcutaneous tissue of the same side of the face, neck, and chest. A similar condition has been produced in attempts to politzerise the Eustachian tube through a catheter. In Mr. Sprague's case the emphysema invaded the submucous tissue of the throat, impeding breathing, speaking, and swallowing. In injecting air into the submucous tissue of the mouth it easily passes backwards underneath the mucous membrane as well as forwards over the lips underneath the skin. It would be interesting to know if emphysema of the mucous membrane of the mouth, nose, or throat has been looked for by anyone who has seen cases of this complication of labour.

I am, Sirs, yours faithfully,

Glasgow, Oct. 30th, 1905. DAVID WATSON.

THE FALLING BIRTH-RATE.

To the Editors of THE LANCET.

SIRS,—In the Bishop of London's charge to his clergy he boldly attacked a great sociological question and one of interest to the medical profession. He deplored the falling birth-rate in this country. His lordship is to be congratulated upon dealing with a matter fraught with so much difficulty and delicacy and yet one of such practical importance not only to the Church but to the nation. The problem is by no means an easy one. It is the burning question in France to-day and many suggestions have been put forward to stem the steady decline in that country where the birth-rate has fallen in the last century from 32·3 per 1000 to 23·4. The Bishop admitted that in all the other European countries, with the exception of Russia, there was a falling birth-rate. He appears to regard it as proved that this almost universal decline is due to the prevention of conception by artificial means. But is this altogether true? I very much wonder. Doubtless the prevention of conception and limitation of families are enormously on the increase in all Western countries—always excepting Russia, which is scarcely Western—but there is another factor making largely for a falling birth-rate, and that is later marriages. I will not weary you with figures, but both in England and France the age at which marriages take place is assuredly getting later—this means fewer years of probable fertility.

The exception of Russia in the general decline is significant. Those who have been in that country know that only a small proportion of its millions have been really brought under the influence of Western habits that go by the name

of civilisation. The vast majority of the Empire consists of millions of wholly uneducated peasants, without joy, or interest, or hope, or laughter in their lives. It is amongst these that the birth-rate increases; and in direct ratio with increased education and all that it brings in its train the birth-rate falls, and this law obtains not only in Russia but in all countries; it obtained in ancient Rome and possibly in Greece, and I venture to think it always will go on. For after all what is civilisation? Is it not really the development of luxury, education, ambition, comfort, and material well-being? And are these compatible with an increasing birth-rate?

I have been collecting some interesting statistics of the number of children born to women who attend the out-patient department (with the weekly wages earned to support the family), and it is a matter of common knowledge how entirely disproportionate they are to the number of children born to women of the wealthier parts of London; and so in France, it is only in the poorer districts where wages are low and the educational standard is low that the birth-rate increases or does not fall. With regard to the ethics of the question, from the Bishop's point of view there can be no doubt. Rome forbids the prevention of conception and surely the English Church should not be content with a lower standard.—I am, Sirs, yours faithfully,

Curzon-street, W., Oct. 30th, 1905. AUGUSTUS W. ADDINSELL.

TO MEDICAL FREEMASONS.

To the Editors of THE LANCET.

SIRS,—May I once again through the medium of THE LANCET thank the numerous medical Freemasons who sent their votes to me for the medical candidates at the recent elections of the Masonic charities. The candidates were all successful as under.

Royal Masonic Institution for Girls.—11th, Mary Trevor Webster, daughter of the late Trevor Webster of Bewdley, Worcestershire—4130 votes. 23rd, Mary Irene Morris, daughter of the late Albert Morris, L.R.C.P. Edin., M.R.C.S. Eng., of Southend-on-Sea—3435 votes.

Royal Masonic Institution for Boys.—27th, Cyril Ernest Hockley, son of the late Edward Robert Hockley, surgeon-dentist, of Northfleet, Kent—4463 votes.

I am, Sirs, yours faithfully.

HAROLD S. SINGTON,
Secretary, St. Luke's Medical Lodge of Instruction.

44, St. Mary's Mansions, W., Oct. 20th, 1905.

"DR. BELL'S" CIRCULARS.

To the Editors of THE LANCET.

SIRS,—With reference to previous correspondence regarding circulars of an objectionable character emanating from "Dr. Bell," 175, Wardour-street, London, W., I have to acquaint you that the persons responsible for carrying on this business—viz., Alfred Wray, medical electrician, manager; Henry Townsend, otherwise C. Field, shopman; Henry Mostyn, clerk; and Frank Orchard, porter—were arrested on Oct. 12th and charged with sending a postal packet containing an indecent print or book on July 29th, 1905, contrary to the Post Office Protection Act, 1884, section 4 (*b*). The prisoners appeared on remand at Marlborough-street police court on Oct. 27th, when they all elected to plead guilty and asked for the case to be dealt with summarily under the above-quoted Act. The learned magistrate accepted the plea and imposed upon Wray, who was acknowledged to be the principal, the full penalty—a fine of £10, with £5 costs. Townsend was fined £5 and £1 costs. Mostyn and Orchard were each bound over in their own recognisances in the sum of £10 to be of good behaviour for 12 months.—I am, Sirs, your obedient servant,

F. S. BULLOCK,
Chief Constable, for Assistant Commissioner.
Criminal Investigation Department, New Scotland Yard, London, S.W., Oct. 30th, 1905.

ELECTRIC ENEMATA IN COLITIS.

To the Editors of THE LANCET.

SIRS,—In the very able article by Dr. W. Hale White in THE LANCET of Oct. 28th I think he has omitted to mention one form of treatment that is well worth a trial in obstinate cases of colitis; I refer to electric enemata. I have only had an opportunity of employing this treatment in one case but there the result was so extremely satisfactory that I think it is worth drawing attention to this remedy.

The patient, a woman, aged 63 years, who led a busy, active life and is not at all neurotic, was sent to me for static treatment by Mr. W. Arbuthnot Lane on account of the colitis. She was first taken ill in May, 1902, and from that time till she came to me in April, 1905, she had had every variety of treatment, both at home and at Plombières, by medicines, by bowel, by diet, but the motions continued loose, offensive, and always accompanied by mucus—sometimes in the form of complete membranes and sometimes only as shreds, and sometimes accompanied by hæmorrhage. She lost a great deal of weight and, though about 5 feet 4 inches in height, in February, 1904, she weighed but 4 stones 9 pounds. It continued between this and 5 stones till January, 1905. She began milk diet on Feb. 2nd, 1905, under the instructions of Mr. Lane, and on April 3rd, when she began static treatment, her weight was 5 stones 9 pounds. From that time till now she has gained steadily, and her weight to-day is 7 stones 10 pounds. The treatment lasted from April 3rd till May 6th, but beginning on April 29th, as the motions were still unsatisfactory and frequent, I gave her ten electric enemata of a solution of $AgNO_3$ of a strength of 0·1 per cent. After a preliminary lavage of the bowel one and a half pints of the silver nitrate solution were injected through a rectal tube in which was a copper wire that could be connected to the + pole of a battery. Large clay electrodes were placed on the back and abdomen and connected with the − pole. A current of from 15 to 20 milliampères was passed for 15 minutes. The result of this treatment was that the motions became natural in consistency and frequency, that the mucus disappeared and the flatus diminished, and this condition has remained till a cold about a week ago brought back some mucus in, and irregularity of, the motions, but this has been put right by three electrical enemata.

I cannot help thinking that this case is worth recording owing to the very marked good which the patient derived from electricity after other treatment had failed, and it seems to me that the introduction of silver into the very protoplasm of the cells of the colonic mucous membrane by means of ionisation cannot but have a beneficial result. Injections of $AgNO_3$ have long been used for colitis, but I think it is a fair inference that the salt is converted into a chloride or sulphides as soon as it reaches the bowel and, as such, is not absorbed. On the other hand, Dr. Whitaker reports a case in the *Archives of the Roentgen Ray* in which the skin under the *negative* electrode became stained brown by the silver, proving absolutely that it must have penetrated the mucous membrane. In my case no staining occurred but the treatment was only followed for ten days. There are other salts besides $AgNO_3$ which might be beneficial in these cases of colitis if we could only insure their being absorbed and this we can do by the method I have indicated which is simple and painless. When one sees the misery that sufferers from chronic colitis experience I think any method that offers a possibility of relief, if not always of cure, would be more than welcomed by our patients as well as by ourselves. I am, Sirs, yours faithfully,

Bina-gardens, S.W., Oct. 31st, 1905. J. CURTIS WEBB.

CENTENARIANS.—Miss Marianne Hensley of 4, Bloomfield-place, Bath, attained the 100th anniversary of her birthday on Oct. 15th. She was born in Bath and was the elder sister of the late Dr. Henry Hensley of that city who died in 1891.—Mrs. Elizabeth Johnson, the landlady of the "Bumper Castle" Inn, on the main road from York to Helmsley, who is the oldest licensed victualler in England, celebrated the 101st anniversary of her birthday on Oct. 27th. She was a native of Easingwold, where she was born on Oct. 27th, 1804. For a year short of three-quarters of a century she has been engaged in the licensed trade. Just 59 years ago Mrs. Johnson and her husband entered upon the tenancy of the "Bumper Castle." Mrs. Johnson, whose husband died 28 years ago, has had ten children, four of whom are living. The youngest, who is 62 years of age, assists her in the conduct of the business. One of the reporters of the *Yorkshire Post*, from which we have taken the above account, had an interview with the old lady at the "Bumper Castle" on Oct. 26th. She was then sitting beside the fire in the kitchen of the inn, for she feels cold acutely, but in other respects she seemed remarkably well. Though her hearing was rather deficient her eyesight was wonderfully good, and she conversed with him intelligently enough.

THE AUSTRALASIAN MEDICAL CONGRESS.

(FROM OUR OWN CORRESPONDENT.)

(Concluded from p. 1288.)

State Medicine and Ethics.

THE presidential address in State Medicine and Ethics was delivered by Mr. G. A. SYME of Melbourne. He said that in the relations of the medical profession and the State many mal-adjustments existed, so great in some instances as to amount to war, as in the "battle of the clubs." Instead of fighting certain sections in the State, and especially using their own weapons, they should educate them, make them realise that medicine was not a trade the business of which was the selling of charms and specifics, but a progressive science with immense potentialities and also with definite limitations. It was desirable that the requirements for medical registration should be made uniform throughout the Commonwealth. It was also suggested that the fulfilment of the requirements should give a more satisfactory guarantee of competence for actual practice, and it was a question for serious consideration whether practitioners should be registered unless they could show evidence of practical work as resident medical officer or pupil at a hospital or as assistant to a medical man. As regarded the repression of quackery more would be done by proper education of the people than by legal enactment, except that the real composition of quack medicines should be placed on the bottle by law. The methods adopted by the State in caring for disease in public institutions varied all over the Commonwealth. Mr. Syme was emphatic that in Australia too many charitable institutions had been established and that the accommodation was too good, leading to abuse. Only the actually destitute should be admitted and payment should not be taken from hospital patients, and to have paying wards attached to public hospitals supported by the State, and to restrict the paying patients to the attendance of the staff of the hospital, as was done in several instances, was wrong and unfair. In all but clinical hospitals the medical staff should be paid. Besides public and private hospitals an intermediate institution was required, where the charges both for accommodation and attendance would be moderate, and such might perhaps be established by the friendly societies. Mr. Syme thought that private hospitals should not be conducted by medical men. The more they kept to "practising an art" and away from "driving a trade" the better, and keeping a private hospital exposed its medical conductor to many temptations. Gratuitous attendance should be regulated and much restricted, and fees only remitted to those who were actually unable to pay. Fees in Australia would have to be reduced and should be made more uniform in the different States. In ethics Mr. Syme referred to the relations of practitioners and consultants and dealt at some length with professional secrecy.

WORK IN THE SECTIONS.

Surgery.

It would be impossible to detail the work done in the various sections. In that of Surgery interesting discussions took place on Appendicitis, Prostatectomy, and Hernia. Opinions were divided as to the advisability of removing the appendix in suppurative cases; on the whole, opinion inclined to leaving it. The Sydney surgeons advocated the perineal route for prostatectomy and the Melbourne surgeons the suprapubic.

Mr. R. H. RUSSELL described a new method of Treating the Sac in the Radical Cure of Hernia.

Dr. M. MORTON dealt with Brophy's Operation for Cleft Palate, demonstrating his instruments and methods.

Mr. H. S. NEWLAND exhibited two patients whose ureters had been successfully transplanted into the rectum for extroversion of the bladder.

Medicine.

In the Section of Medicine Dr. G. E. RENNIE dealt with Diet in Relation to Kidney Disease and a long discussion followed.

Dr. OTTO L. M. ABRAMOWSKI advocated the rigid no-food treatment of typhoid fever. He kept his patients for 40 days on nothing but sterilised water.

Dr. JOHN W. SPRINGTHORPE took up the subject of the Use and Abuse of Mental Therapeutics.

Dr. H. LAWRENCE illustrated the effects of radium and electro-therapeutics on skin diseases and exhibited "an x ray bath."

The x ray specialists had a morning devoted to their papers, among which were contributions by Dr. L. H. L. HARRIS and Dr. F. J. CLENDINNEN. The latter believed that he had proved that the x rays produced a chemical effect on the tissues by producing nascent pure nitric acid and gave an account of the experiments which he had conducted in his investigations. Several papers on Tuberculosis and its Sanatorium Treatment were read.

Gynæcology.

In the Section of Gynæcology papers on Pelvic Suppuration were read by Dr. G. R. W. ADAM and Dr. R. WORRALL, eliciting a prolonged discussion, as did papers by Dr. F. C. BATCHELOR on the Toxæmias of Pregnancy, by Dr. H. O. COWEN on Puerperal Sepsis, and by Mr. JOSEPH FOREMAN on the Abdominal Incision.

Ophthalmology.

In this division Dr. F. ANTILL POCKLEY introduced a discussion on Trachoma and Dr. J. LOCKHART GIBSON one on Optic Neuritis due to Lead Poisoning. He found that a number of cases of lead poisoning in Brisbane were due to children getting paint on their fingers off the verandahs and then biting their nails.

Otology and Rhinology.

In the Ear, Nose, and Throat Section special discussions were held on the indications for the Radical Mastoid Operation, the Methods of its Performance, and the Value or Otherwise of Epithelial Grafting, and on the Diagnosis and Treatment of Suppuration of the Accessory Sinuses of the Nose.

Pathology.

In the Section of Pathology papers were read on Leucocythæmia and Human Parasites.

Public Health.

In the Section of Public Health Dr. J. S. C. ELKINGTON gave a long address on School Hygiene, in which he strongly condemned the sanitary conditions existing in State schools and advocated the systematic hygienic instruction of school teachers.

Dr. E. S. STOKES gave a review of sewage treatment.

Dr. JAMES JAMIESON presented a record of 20 years' sanitary progress in Melbourne.

State Medicine and Ethics.

In the Section of State Medicine Dr. RENNIE discussed the rôle of provident medical dispensaries, outlining the results in Sydney, and papers on hospital abuse and paying patients in public hospitals were read. The sections passed the following resolutions:—

That it is unethical for auto-biographical or biographical notices of members of the medical profession to appear in the lay press during their lifetime.

That it is unethical for medical practitioners to grant interviews to representatives of the lay press on medical matters, in connexion with which their names are allowed to appear. That a copy of this resolution be forwarded to the lay press.

That a committee be appointed consisting of representatives from each State, with power to add to their number, to consider the best means to be adopted to amalgamate the various medical organisations throughout Australasia and New Zealand, two representatives to be elected by the local branches of the British Medical Association in each State, by the Victorian Medical Society, and in Tasmania by the medical section of the Royal Society, and by each Medical Defence Association in Australasia.

That in the opinion of this Congress the future provision for the care and treatment of the insane in Australasia should be based upon a recognition of the threefold requirements of (a) up-to-date mental hospitals; (b) farm and industrial colonies; and (c) benevolent asylums. That in the opinion of this Congress there is imperative need for the establishment in different States of epileptic colonies, in which epileptic children should receive education, epileptic adults be suitably employed, and epileptics generally find a home, as well as the most successful treatment.

The last three resolutions were presented to Congress and adopted, as were also the following:—

From the Section of Medicine.

That this section is of opinion, judging from the complex and sometimes dangerous symptoms produced by x rays, radium, and Finsen light, that the use of these agents should be in the hands only of members of the medical profession, or under their supervision.

From the Public Health Section.

That in view of the profound influence of school life and school training upon the physical future of the Australian race, the hygienic

construction and management of schools, the training of teachers in school hygiene, and the systematic, practical instruction of school children in elementary, personal, domestic, and civic hygiene, are subjects which demand the earnest attention of the Governments of the various States of the Commonwealth.

That for each State education department there should be available a whole-time medical officer possessing special knowledge of school hygiene, to whom should be referred all questions relating to the hygienic construction and management of State schools, to the protection of teachers and pupils from preventable diseases, and to the methods and scope of hygienic instruction and training.

That applied school hygiene should form a compulsory subject in the training of State teachers and that a system of medical inspection of schools should be introduced at an early date, particularly in the larger centres of population.

That the compulsory notification of phthisis is advisable in the interests of public health.

That in view of the large number of deaths from phthisis in Australasia this Congress urges upon the Governments of the various States the necessity of establishing and maintaining sanatoria for the treatment of cases among the poor.

That it is necessary to provide a fund for assisting families among the poorer classes where the breadwinner is suffering from phthisis and has entered a sanatorium for treatment, and this Congress urges upon the Governments of the various States the necessity of taking steps for providing such a fund.

This Congress protests against any action which has the effect of interfering with a bi-daily delivery of milk in Australian cities and considers any such action as seriously prejudicial to the public health.

That it be a recommendation to the next Congress that special consideration be given to the attaining of uniformity in the compilation of vital statistics in the Australian capitals.

The Next Meeting of the Congress.

At the final meeting it was decided that the next Congress should be held in Melbourne in 1908 and Professor H. B. Allen was elected President.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Local Drainage and Sewerage Schemes.

CONSIDERABLE activity has been displayed locally in the directions of drainage and sewage. The most important scheme which is at present on hand is the diversion of the River Rea at Nechells so as to prevent the flooding which has occurred there in times of heavy rainfall. The scheme which is being carried through by the public works committee of the city council is well forward and its importance can be gauged from the fact that £39,000 are being spent on the undertaking. A somewhat similar improvement in the surface water drainage is meditated at Hay Mills. At the last meeting of the Birmingham Tame and Rea district drainage board it was decided to spend £16,087 on the construction of bacteria beds and on slag medium. The beds will take the place of downward filtration and will be three acres in extent. It is a continuation of the policy adopted several years ago by the board.

The Housing Problem.

Mr. J. S. Nettlefold, the chairman of the housing committee of the Birmingham city council, has issued a brochure entitled "A Housing Policy," in which the following summary of the work done by the committee from January, 1902, to June, 1905, is given: houses represented as unfit for habitation, 2365; houses rendered habitable, 560; houses undergoing repairs, 283; houses demolished, 258; notices unexpired, 1254; and closing orders obtained, 589. The land purchased some time ago at Bordesley Green as a site for working men's houses is not yet let but the members of the committee are now considering the question of dealing with the land on lines suggested to them by their visit to Germany.

The Hospital Saturday Fund.

The total of the present year's collection towards the above Fund amounts to £18,653 14*s.* 1*d.*, showing an increase of £150 as compared with that for the corresponding date last year and of £10 7*s.* 1*d.* compared with last year's final figure. In the face of the bad state of trade during a great part of the year the result is considered highly encouraging and a most satisfactory sign of the growing appreciation of the work of the Fund. The committee, after a careful consideration of the claims of the various institutions, recommends that the sum of £10 000 should as heretofore be distributed among them in the following manner: General Hospital, £3150; Queen's Hospital, £2100; General Dispensary (general fund £540, relief fund £500), £1040; Children's Hospital, £800; Eye Hospital, £450; Birmingham and Midlands County Sanatorium, £100; Homœopathic Hospital, £200; Women's Hospital, £475; Lying-in Charity, £150; Orthopædic Hospital, £300; Ear and Throat Hospital, £100; Dental Hospital, £50; Skin and Urinary Hospital, £200; District Nursing Society, £150; Jaffray Suburban Branch Hospital, £400; Moseley Convalescent Home, £200; Aston Manor District Nursing Association, £25; Smethwick District Nursing Institution, £25; St. John Brine Baths, Droitwich, £75; and King's Heath District Nursing Society, £10. Two institutions, the last two in the above list, have been introduced for the first time as benefiting from the Fund. To provide for these a reduction has been made in the case of the Eye Hospital, the Sanatorium, and the Moseley Convalescent Home.

A New Convalescent Home.

A fund has recently been opened in Birmingham for the provision of a new convalescent home in connexion with the Crippled Children's Union. The present convalescent home is considered to be quite inadequate for the 750 children on the union's list. It is estimated that the home will cost £6000 and towards this sum £2234 have been already subscribed. In addition to this it is desired to raise the annual subscriptions from £300 to £2000. A gratifying feature is the financial assistance which the committee has received from the parents of the crippled children. A short time ago the secretary wrote to 300 of them explaining the state of the union's funds and within ten days as a result of the appeal £88 were subscribed.

Local Hospital News.

The eighty-eighth annual report of the general committee of the Royal Orthopædic and Spinal Hospital has just been made public. On the year's work there is a deficit of £423. Despite this, however, the committee has decided to build an out-patient department at an estimated cost of £4000. Heretofore the out-patients have been treated in neighbouring premises which are quite unsuitable, which are nearly tumbling down, and which they have received notice to quit on March 25th. Generous terms have been offered for a lease of an adjoining site and building operations will commence as soon as possible. In the new premises it will be also possible to accommodate the nursing staff, for whom rooms are at present engaged in the adjoining street.—The foundation-stone of the east wing extension of the Midland Counties Home for Incurables was recently laid by the Marchioness of Hertford. The new building, which will be constructed of brick, iron, and concrete, will be practically fireproof and will provide accommodation for 15 additional beds, bringing the total number up to 106. There will be a large dayroom for the use of the male patients and above this will be two new wards, one on the first and the other on the second floor. The total cost, including furniture, is estimated at £3000, of which £2000 have already been subscribed.—The last annual meeting of the Dudley Dispensary constituted the sixtieth meeting of the subscribers and in a review of the work done during the last 60 years it was stated that the total number of patients who had been treated was 223,987. Of the 4785 patients treated during the last year 4572 had been cured or relieved, 58 had died, 17 had been discharged to the parish, 53 had been recommended to hospital, and 95 were still under treatment. There was a favourable balance on the year's work of £75.

The Problem of the Underfed Children.

The local boards of guardians have had the above question under consideration in view of the new regulation from the Board of Education. In Birmingham they have decided to appoint three officers to administer the new Act. In Aston, however, special officials are considered unnecessary and undesirable. Some interesting statistics have been supplied as to the number of underfed children. The following are the figures:—Parish of Birmingham, county schools, 1796; voluntary schools, 720; total, 2516. Union of Aston (in city), 935, 485; total, 1420. Union of King's Norton (in city), 52 70; total 122. Complete total, 4058. So far the children have been fed by the Birmingham School Cheap Dinner Society and through the private munificence of Mr. George Hookham. The society and Mr. Hookham will continue to feed those children whose parents do not come under the Act.

Health of Birmingham.

In the quarterly report on the health of the city the medical officer states that the birth-rate for the quarter ended September was 29·2 per 1000, the lowest ever recorded for this period of the year. The death-rate was a relatively low one, being 15·6 per 1000. The

zymotic death-rate was 3·72 per 1000, as compared with 6·79 in the corresponding quarter last year; the deaths from epidemic diarrhœa amounted to 367, as compared with 790. Inquiry made by the health department in regard to 326 deaths from diarrhœa showed that 176 were children under six months old; that only 16 of these were fed quite naturally; that 26 were fed naturally and with other food; while the remaining 134 were fed on other foods. The medical officer directs attention to the fact that the mortality from diarrhœa is 30 times as great among bottle-fed babies of the working classes as it is among breast-fed babies. The number of mothers who were obliged to give up nursing was a large one. It was necessary to recognise this and to make arrangements for the provision of some good substitute for the natural food, such as a specially clean supply of cow's milk.

Oct. 31st.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Infantile Mortality in Manchester and Salford.

THE excessive infantile mortality in our large towns is, and must be, an oft-recurring theme, until its reduction is accomplished. In contrast to the diminishing death-rate from other causes it remains unchanged and, indeed, sometimes appears to be on the increase, and still continues one of the black shadows of our so-called high state of civilisation. An interesting letter by Dr. Rhodes on this subject appears in Saturday's *Manchester Guardian*. He speaks strongly but there may be justification for his saying that "the slaughter of the innocents" will continue as long as the ratepayers "send the slum owners and house-sweaters to the council." He shows that it does not depend on the great numbers of the inhabitants by taking the mortality per 1000 births in Halifax, Bristol, London, and West Ham, where they range from 130 to 165, while in Manchester the deaths are 183 and in Salford 196. As to causes, "no doubt dirty bottles, sour milk, improper foods, women working in mills, neglect, all are powerful causes of a subjective character." But, "when the thermometer rises high the mortality from diarrhœa rises like a church-steeple." In the hot days of summer "the flies distribute the germs of the diseases that carry off thousands of little children." He blames the privies and the pail closets as being their great breeding places from which they carry the germs to the food. In six of the districts of Manchester with an infantile mortality of not more than 150, one only has more than 35 per cent. of privies and pail closets. In the six with over 171 per cent. of deaths there is only one with less than 60, and there are three with over 65 per cent. of these "insanitary abominations." No doubt a strong case may be made out against the flies and a crusade against them by the destruction of their breeding places would be an undertaking quite as worthy of a municipality as many of those on which they usually engage. The factory system is a very serious item in the causes of infantile mortality, but underlying all, the appalling and widespread ignorance of a large proportion of the working-class women of the towns as to the care and feeding of the children would have to be met, even if all the flies were destroyed. And beyond all this it is to be feared the confession must be made that, putting natural affection aside, the sense of responsibility and duty as to the care of their children sits but lightly on those who have had the advantage of over 30 years of costly but inefficient public elementary education in addition to the efforts of municipal health committees, sanitary associations, and the self-denying labours of ladies' health societies. The low moral tone of a pleasure-seeking generation is at the root of much of our infantile mortality. Its diminution will depend much on the growth of an increased sense of duty and responsibility among the parents.

Death in Withington Workhouse.

It is always to be regretted that deaths should occur in workhouses and asylums leading to reports in the papers with such headings as "A Mysterious Case." A woman, aged 84 years, an inmate of the lunatic ward of the Withington workhouse hospital, died and an inquest as to the cause of death was held by Mr. E. Gibson, the city coroner, on Oct. 23rd. It was noticed that on Oct. 21st she was breathing heavily and she said that she felt poorly. The medical officer was sent for and came at once but the woman died just as he arrived. She had been very feeble but was up each day. The superintendent of the wards and two nurses said that they knew of no fall, except that on Oct. 4th they were told that she had a partial fall out of bed, but the old woman said that she was not hurt. She had never complained and they had never heard of any ill-usage. Mr. W. J. Heslop, who made a post-mortem examination, said that there were bruises on the back of both forearms and a bruise under the right eye. The body was emaciated Five ribs were broken on the right side and three on the left. They were no thicker than a shilling and were so brittle that one broke during the examination. Three only showed signs of fracture before death. He did not consider that they had been broken so long as three weeks and he thought that a certain amount of violence would have to be used to cause fracture. "Death was due to cardiac failure accelerated by the fractured ribs." The coroner suggested that the jury might return an open verdict. The jury added to their verdict that "they thought more attention ought to be paid to old and feeble patients in the wards." The bruises on the back of the forearms might well be caused by the woman's own efforts in moving in bed for they easily occur, and with ribs of the fragility stated a very slight force might be sufficient to cause fracture.

Copper and Green Peas at Birkdale.

The adulteration of green peas with copper sulphate seems just now to be attracting more than usual attention. At the Birkdale police court on Oct. 19th a well-known firm of Manchester grocers, with a branch at Birkdale, were summoned for selling one pound of green peas that were "not of the nature, substance, and quality demanded." Mr. Collingwood Williams, the county analyst, found 0·076 grains of copper and three grains of crystallised copper sulphate, which he said was an unusual quantity and injurious to health. The defending solicitor was amusing and clever in his argument in favour of adulteration. He said that in this case the "addition," not, as we should say, the adulteration, was not made to mask decomposition but to keep the peas in a good, wholesome state longer than they otherwise could be, and that "to abolish the use of such preservatives and colouring matter would be the biggest blow against foodstuffs that could be imagined." Sir George A. Pilkington, the presiding magistrate, said that if he had not been a medical man the defence would have completely altered his views but that it was news to him that three grains of sulphate of copper was not a poisonous dose. The public were entitled to have peas without such additions. A fine of 40*s.* and five guineas special costs followed. The defence made a point that the Government had not introduced legislation on the departmental committee's recommendations. There is no doubt that this special adulteration is almost universal and the county analyst was certainly justified when he said in his evidence that "he regarded the use of sulphate of copper in green peas most objectionable, not only from the point of view of health but also from the point of view of deception."

Oct. 31st.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

University of Liverpool.

THE matriculation ceremony of the University of Liverpool was held on Oct. 27th in the Arts Theatre. The Vice-Chancellor delivered an address to the candidates and afterwards admitted them as undergraduates of the University in the various faculties as follows: faculty of arts, 91; faculty of science, 51; faculty of medicine, 20; faculty of law, six; and faculty of engineering, 16. The total number of candidates presented this year—namely, 184—is considerably in excess of that recorded in any previous session.—The following staff appointments have been made in the medical department: lecturer in organic chemistry, A. W. Titherley, D.Sc., Ph.D.; lecturer in experimental psychology, W. G. Smith, M.A., Ph.D.; assistant lecturer and demonstrator in chemistry, H. Bassett, Ph.D., B.Sc.; assistant demonstrator in physics, C. A. Sadler, B.Sc.; external examiner in veterinary jurisprudence and toxicology, W. F. Barrett, F.R.C.V.S., barrister-at-law;

and assistant lecturer in public health bacteriology, R. S. Williams, M.B., C.M. Edin., D.P.H. Cantab.—The total amounts contributed to the Students' Union Fund are £5855, including £1000 each from Mr. Edward Whitley and Sir John Brunner, Bart., M.P.; and £500 each from Mrs. George Holt, Miss Holt, Mr. Charles Jones, Mr. E. K. Muspratt, and Mr. T. Sutton Timmis. Other donations varied from £250 to £25.

Liverpool Medical Institution.

The inaugural address will be delivered on Nov. 16th by Dr. James Barr, the President. The structural alterations will be completed for the occasion.

Obituary.

Mr. John Nelson Cregeen, L.R.C.P. Edin., M.R.C.S. Eng., L.F.P.S. Glasg., died at his residence in Prince's-avenue on Oct. 27th, at the age of 69 years, after a long and painful illness. He was a native of the Isle of Man and had practised in Liverpool for upwards of 30 years. He was formerly honorary treasurer and vice-president of the Liverpool Medical Institution. Mr. Cregeen frequently visited the Isle of Man and was well known to the Manx people. The interment took place at Peel on Oct. 30th, a memorial service being held on the same day at St. Mary's Chapel for the Blind, Liverpool.—Mr. Joseph Kellett Smith, another well-known Liverpool practitioner, died at West Kirby on Oct. 29th at the age of 69 years. Born at Yeadon, Yorkshire, he came as a youth to Liverpool to be apprenticed to his uncle, the late Dr. Chippendale. He was a Member of the Royal College of Surgeons of England and a Licentiate of the Royal College of Physicians of Edinburgh. For 20 years he was honorary surgeon to the Liverpool Stanley Hospital. He retired from practice in 1899 and then removed to West Kirby. In 1892 he was appointed a justice of the peace for the city of Liverpool. He was chairman of the Hoylake and West Kirby waterworks. Three weeks ago he was attacked by influenza which seriously diminished his strength and to which he eventually succumbed. He leaves a widow, a daughter, and three sons, one of whom is Mr. S. Kellett Smith, F.R.C.S. The interment took place at West Kirby on Nov. 2nd.—A sad mishap has unfortunately resulted in the death of Miss Lucy Helen Alexander, L.R.C.P., L.R.C.S. Irel., of 119, Upper Huskisson-street. Whilst at dinner on Oct. 18th she accidentally swallowed a fish-bone and shortly after was admitted to the Southern Hospital where an operation was performed, but death occurred on the following day. Miss Alexander, who was a native of Dublin and about 28 years of age, had for the last two years been on the medical staff of the Burlington-street dispensary of the Liverpool Medical Mission. Her professional education was received in the school of the Royal College of Surgeons in Ireland and in 1903 she obtained the conjoint diploma of the Royal Colleges of Physicians and Surgeons in Ireland. Miss Alexander was held in the greatest esteem both by the dispensary patients who were under her care and also by the officials of the Liverpool Medical Mission.

Oct. 31st.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

First Aid in Collieries.

AT a meeting of colliery officials held at Newport (Mon.) on Oct. 21st, during a discussion upon accidents in mines Mr. J. S. Martin, inspector of mines, referred to the absence of organised instruction in first aid in the colliery districts. He stated that he had been in communication with the colliery managers in his district with a view to interest them in a more or less general scheme. A few years ago the younger men in some parts of the Glamorgan coalfield were very earnest in their attendance at ambulance classes and their enthusiasm was fostered by prizes and trophies given by the technical instruction committee of the Glamorgan county council and by competitions at local eisteddfodau. If the colliery managers can be persuaded to follow the example of the managers of the great railways and to encourage a study of the subject there is no doubt that a great deal of good will follow.

Alleged Death from Vaccination.

The advisability of investigating the circumstances attending every death alleged to be due to vaccination has been once more illustrated in the report of an inquest recently held at Llanelly in Carmarthenshire. It appears that a child born on May 19th was vaccinated on Sept. 29th and died on Oct. 25th. The medical man who attended during the child's illness certified the death as due to bronchitis and collapse. A few days before the child died the father called in four other medical men, three of whom upon finding a colleague in charge of the case refused to continue in attendance. Mr. J. Davies, however, is reported to have replaced the dressing on the child's arm by another and upon death taking place he is said to have advised the father that it was due to vaccination and suggested that he should report the matter to the police and to the Local Government Board. A post-mortem examination having been made by Dr. Samuel Williams the cause of death was found to be malnutrition and bronchitis, thus supporting the opinion of four of the medical men who saw the child during life and also that of Mr. Davies who added, however, that he considered that the vaccination accelerated death. The jury found that death was due to bronchitis and malnutrition and stated that in their opinion vaccination had nothing at all to do with the cause of death.

The Medical Officer of Health of Chipping Sodbury.

The Local Government Board has now given formal notice to the sanitary authorities concerned (including that of Chipping Sodbury) that at the end of one month it will issue an Order constituting all the districts of the former combination, except the Chepstow rural district, a combined district for the purpose of electing a joint medical officer of health. The exclusion of the Chepstow rural district is due to the fact that it is situated in Monmouthshire while all the other districts are in Gloucestershire. The Board has, however, suggested that the Chepstow authority should unite voluntarily with the other authorities in the combination as hitherto. In order to prevent any repetition of the regrettable controversy of the past few months between the Local Government Board and the Chipping Sodbury council it is to be hoped that the Board will take care that the Order shall give security of tenure to the officer appointed, following the precedent of other combined districts.

Workmen's Dwellings in Bath.

The corporation of Bath has of late years displayed commendable activity in the destruction of slum property with narrow streets and sunless courts, erecting in its stead well-arranged houses for the working classes. The accounts for the last financial year show a loss on the corporation property of £272, but it is gratifying to find that the members of the housing committee regard the money loss as more than compensated for by the gain to the city in other directions and they now recommend a further scheme involving an expenditure of £8100 and an estimated yearly loss of £149. In this latest scheme 18 cottages will be erected and one street will be considerably widened.

Memorial to the late Dr. E. Crossman.

The Dowager Duchess of Beaufort on Oct. 25th formally opened the new building of the Hambrook Cottage Hospital, which has been erected at a cost of about £900 as a memorial to the late Dr. Edward Crossman who died in 1904 and who practised for many years in the district, holding the appointment of medical officer of health of the Barton Regis rural district until within a few weeks of its dissolution and absorption by the city of Bristol and other authorities. The new building has accommodation for six patients, five in two wards on the ground floor and one in a ward on the first floor. It replaces two cottages which were first used as a hospital in 1867 on the suggestion of Dr. Crossman who continued as medical director of the institution until within a few years of his death.

Cheltenham Sewage Farm.

The sewage farm belonging to the Cheltenham corporation is situated outside the borough, within the areas governed by the rural district councils of Tewkesbury and of Cheltenham, and complaints have for some years been made of the nuisance caused by it. A great part of the soil of the farm is clay and is probably waterlogged. Four years ago the Gloucestershire county council gave formal notice to the corporation of its intention to enforce the provisions of the Rivers Pollution Act. About that time the corporation took the management of the farm into its own hands and adopted measures to lessen the causes of complaint, but the conditions are still so unsatisfactory that the county council at its last meeting on Oct. 23rd decided to give the corporation another notice to remedy the nuisance

caused by the passage of sewage into the Hatherly brook and the river Chelt and in default of a sufficient remedy to take proceedings under the Act.

Bristol Medical School.

The annual dinner of the past and present students of the Bristol Medical School is always a successful gathering but the latest occasion on Oct. 26th, when nearly 140 were present, eclipsed all its predecessors. The foundation of a western university is always a fruitful topic at this meeting and Professor W. Osler, who was the guest of the evening, suggested that university chairs should be founded upon a sound financial basis to the memory of eminent Bristol physicians—namely, a chair of medical jurisprudence to the memory of Prichard, one of medicine to that of Symonds, and one of hygiene to that of Budd. He rather startled his audience by the expression of the opinion that £80,000 per annum ought to be spent on a western counties university.

Accommodation for Idiot and Imbecile Children.

The treatment of idiot and imbecile children in an institution apart from the county asylum has been advocated for many years past by the committee of visitors of the Gloucestershire Asylum and there appears to be at last some prospect of the proposal taking definite shape. It has been arranged to lease Sandwell Hall, near Birmingham, from Lord Dartmouth at a rental of £200 per annum. There is room after making somewhat extensive alterations in this building for 200 children. The Gloucestershire county council has decided to bear one-tenth of the cost, the remainder being borne by the authorities in the adjacent counties.

West of England Eye Infirmary.

The annual meeting of the governors of the West of England Eye Infirmary, Exeter, was held on Oct. 27th under the presidency of Mr. H. Imbert-Terry. The medical report stated that during the past 12 months 3189 patients had been treated and that the daily average number of in-patients was 51. The financial statement was satisfactory and showed that the committee had been able to invest £500.

Oct. 30th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Milk-supply of Glasgow.

Mr. A. M. Trotter, veterinary surgeon to the corporation of Glasgow, has prepared for the subcommittee on meat and fish inspection a report on the supervision of the milk-supply of the city. He says that grave difficulties arise in giving effect to the powers conferred by the Glasgow Police Amendment Act as to inspection of country herds. One of these impediments is the want of some means by which the authorities can ascertain the farmers who consign milk to the city. A second impediment is the lack of a clause in the Act which would place on the dairyman consigning to, or selling in, the city the onus of notifying the veterinary surgeon to the corporation of all cases of disease. In the more recent Acts, private or general, dealing with milk supervision the powers conferred are restricted to cases of tuberculosis. This is a grave defect as there are other diseases affecting bovines which are equally injurious to the public health and he therefore suggests that dairymen ought to be compelled to notify also cases of disease of the udder in any form, eruptions on the teats, chronic wasting disease—i.e., "piners"—and those undergoing medicinal treatment. The necessity for this additional provision has been apparent for many years and his experience in the city abattoirs has intensified the impression. Large numbers of dairy cows consigned from dairying counties are not in a condition to yield milk fit for human consumption and were the Glasgow Act amended as suggested it would render innocuous many sources of danger to the public health. In the third place it would be an improvement were power to be obtained to slaughter certain cows, particularly those affected with tuberculosis of the udder, and were provision made for paying the dairyman the full market value of the animal, plus expenses, as compensation in the event of mistaken diagnosis. As the Act stands at present the corporation has only power to remove any objectionable cow out of the herd and during the past eight years Mr. Trotter has been informed of several instances in which milch cows to which he had objected were simply sold to another dairyman. The fourth alteration that he suggests deals with the sanitary conditions under which milk is produced. While, no doubt, the sanitary arrangements have been considerably improved during recent years, there still remains much to be desired, not only in construction and repair of premises but also in the method of handling the milk. The town clerk depute has prepared a report dealing with the extent to which the existing statutory provisions would require to be amended or amplified. He agrees with his colleague as to the necessity of inaugurating a more thorough supervision of the milk-supply of the city by the only means available to the corporation—the obtaining of Parliamentary powers. The present state of the law on this subject, he says, is so inadequate and unsatisfactory, and the risk to the public health so manifest and serious, that he cannot conceive the idea of Parliament hesitating to give the powers required and desired.

Physical Deterioration.

The town council of Glasgow deserves credit for the way in which it is attempting to grapple with this problem by all means that lie in its power. The latest proposal was the subject of some discussion at a recent meeting of the town council. The health committee recommended that an attempt should be made to bring prominently under the notice of the citizens the close relationship between the abuse of alcoholic stimulants and physical deterioration by the issuing of handbills or the posting of placards on the lines of those recently issued by a number of English boroughs. It was thought by some councillors that after the words "alcoholic stimulants" there should be added "bad housing and insufficient feeding." It was pointed out, however, that the corporation had taken other means of dealing with bad housing and insufficient feeding and it was accordingly remitted to a subcommittee to consider and to report as to the expediency of issuing handbills in the form of the original proposal.

The Sanitary Condition of Lewis.

The Lewis district committee has issued its official reply to the report of the Local Government Board on the sanitary condition of the island. The main points of the reply were dealt with in THE LANCET of Oct. 14th (p. 1144), so that it is unnecessary to detail them again. The contention of the district committee is that the sanitary condition of the island is well known to it and it has done all in its power to remedy the defects, but the poverty of the mass of the crofter population has prevented any general improvement. A large number of the crofters are deeply in debt for arrears of rent, rates, &c., so that they are not in a position to effect improvements in their houses without material help, say, in the form of loans.

University of Aberdeen Medical Society.

The opening address at this society was delivered on Oct. 27th by Dr. James Mackenzie Davidson, the subject being X Rays and Radium. Professor J. T. Cash, who presided, alluded to the recently instituted library of the medical society which was shortly to receive important additions and then referred to Dr. Davidson's work in the eye department of the Royal Infirmary previously to his departure for London and to the distinction which he had since attained as a specialist in x ray work. The lecturer commenced with a brief sketch of the history of x rays and described an interview which he had had with Roentgen shortly after their discovery. Barium platino-cyanide was used as a fluorescent screen because it had previously been known to render visible the ultra-violet rays of the spectrum. Dr. Davidson then exhibited the apparatus in use at present for producing x rays and showed, by means of a beautiful experiment with a plate of barium platino-cyanide at one end of a revolving arm, that the glow in an x ray tube is not continuous but intermits regularly. He next showed how difficult it was to get a correct idea of the position and the shape of objects in an x ray photograph, as this was essentially a shadow, and to get over this difficulty he had invented his localising apparatus which he exhibited and explained, showing how the same apparatus might be used to produce a stereoscopic photograph. A series of x ray photographs was thrown on the screen, among others several of urinary calculi in position in the body. A positive diagnosis of uric acid calculi could be made only if the patient were fairly thin and the calculus fairly large, uric acid being so transparent to the rays that a calculus might

easily be present without being detected. Dr. Davidson then went on to radium, giving an account of the experiments of Becquerel and M. and Mme. Curie which had led up to its discovery. The radio-activity of a substance could be estimated by the speed with which it could discharge a gold leaf electroscope, and in this way Mme. Curie had found pitchblend to be far more highly radio-active than the uranium salt which Becquerel had used in his experiments. From pitchblend, by careful analysis, the intensely radio-active radium had been separated. This part of the lecture was illustrated by the shadow of a small electroscope being thrown on the screen and discharging it by means first of radium and then polonium. He next explained the different properties of the α, β, and γ rays and showed that by taking advantage of these properties a radium clock had been devised—the leaves of an electroscope were kept continually charged with + electricity by a piece of radium which was throwing off its — electricity into the air. The whole apparatus was in a high vacuum and as the leaves separated under the + charge they struck against two metal points and so discharged to earth, being then charged again by the radium. In conclusion, Dr. Davidson stated that radium was an absolute specific for rodent ulcer.—Dr. J. R. Levack referred to the lecturer's early appreciation of the importance of x rays and of the great use of the stereoscopic method in radiography.—Dr. W. I. Fortescue spoke of the necessity for the best apparatus, as shown by the excellence of the photographs which were exhibited.—Dr. Davidson received an extremely hearty reception from the very large audience present and the meeting closed with votes of thanks to Dr. Davidson and to Professor Cash for presiding.

Oct. 31st.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Cultra and Craigavad Water-supply.

THE inhabitants of Cultra, Marino, and Craigavad districts on the right or east side of Belfast Lough, where many Belfast residents live, are anxious to have a really sufficient water-supply and at a meeting held on Oct. 25th it was decided to appoint a committee to look into the question and to see if a supply could be obtained from Sydenham which is the nearest point reached by the Belfast Water Commissioners.

Royal University of Ireland.

At the recent degree examinations of the Royal University of Ireland Dr. S. H. Blakely of the Belfast Medical School was at the M.D. examination awarded a gold medal for distinguished answering and Dr. J. C. Rankin was at the medical studentship examination awarded a special prize of £25. At the M.B. degree examinations Mr. James S. Dickey, of the Belfast School of Medicine, was first class in medicine and midwifery and was awarded a first-class exhibition of £40.

Dr. C. M. O'Brien, honorary physician to the City Hospital for Diseases of the Skin and Cancer, Dublin, has been elected a corresponding member of the Société Française de Dermatologie.

Oct. 31st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

A Series of Gastro-enterostomies.

AT the Congress of Surgery recently held at Paris (Oct. 2nd to Oct. 7th) M. Monprofit gave the results of his experience in gastro-enterostomy with details of 240 cases, 119 for cancer and 121 for other affections. The operations performed were as follows. That of Woelfler 24 times, that of von Hacker 74 times, the posterior Y incision of Roux 98 times, and the anterior Y incision 44 times. M. Monprofit mentioned that he had decided in future to do none but the Y operation, either anterior or posterior. He has introduced a slight modification of his own with a view to avoiding the stricture of the new pylorus which sometimes occurs. He divides the end of the jejunum which is to be implanted in the stomach in an oblique manner, with the results of partially destroying the circular muscular fibres of the gut and so avoiding any stricture due to their contraction. M. Monprofit concluded by saying that the remarkable success which has hitherto attended the operation of gastro-enterostomy should make all surgeons anxious to practise it more and more and to keep their eyes open for any possible improvements in technique, so that results should become even better than they are at present.

Splints for the Treatment of Arthritis, particularly Tuberculous Arthritis.

At the same Congress M. Caillaud showed some jointed zinc splints. The joint was so made that complete immobilisation could be obtained or any degree of mobility. The splints were placed at the lateral aspects of the joint affected and were fixed by plaster bandages. In cases of ankylosis in a bad position the splints had been very useful in procuring straightening of the limb, whether extension was obtained by means of a weight or whether it was brought about by manual methods, either forced or gradual. As these splints leave both the anterior and posterior aspects of the joint at liberty they are useful in cases in which topical applications have to be used.

The Favourable Action of Xylol in Small-pox.

At the meeting of the Hospitals Medical Society held on Oct. 20th M. Joseph Belin read a paper upon the results which he had obtained in small-pox by the use of xylol, both at Aubervilliers and at the Hôpital du Bastion 29. The results were obtained during the small-pox outbreak of 1904. In addition to the ordinary treatment M. Belin gave his patients xylol in doses of from 100 to 120 drops in 24 hours for adults and 15, 20, or 40 drops for children. The ordinary mortality from small-pox—i.e., 24 per cent.—fell to 12·5 per cent. Complications were much reduced and the xylol appeared to prevent the formation of cicatrices from pitting and was besides a marked deodoriser. M. Belin said that his results confirmed those already obtained by the very few physicians who have tried xylol in small-pox. M. Teissier, who followed, gave his own experience. He had succeeded M. Belin at the Hôpital du Bastion 29 and had carried on the xylol treatment begun by him. He was able to confirm the observations of M. Belin as to the deodorising action of xylol and its action in preventing or at any rate in lessening suppuration in the pocks and thus preventing scarring. Instead of the smooth, depressed, at first red and later white cicatrices which are so disfiguring he only saw, in the majority of cases, small brownish spots or, if the case had been confluent, slightly elevated patches which recalled those of miliary xanthoma or the keloid-like patches sometimes seen after vaccination. The small-pox vesicles seemed to proliferate more in the centre than at the periphery. As to effects of xylol upon the severity of an attack of small-pox or upon its mortality M. Teissier could not speak, but in regard to its deodorising qualities and its action upon suppuration he considered it to be a valuable drug.

A Practical School of Colonial Medicine.

A practical school for colonial medical officers has just been opened at Tuarseck. Its pupils are *aides-majors* of the second-class on their leaving the school of Bordeaux, just as Val-de-Grâce receives pupils from the École de Lyon on their graduating as doctors. The staff of the school consists of officers of the Colonial Medical Service and the colonial wards of the Marseilles Hospital will be used for teaching purposes. The course will comprise: (1) in-patient clinical instruction and diseases of hot countries; (2) out-patient clinical instruction, army surgery, and special diseases; (3) bacteriology, parasitology, military and colonial hygiene, prophylaxis of tropical diseases, and sanitary police duties; (4) surgical anatomy, operative surgery, dressings and apparatus; (5) forensic medicine, administrative hygiene in France and her colonies; and (6) chemistry, toxicology, and pharmacy.

An Epidemic wrongly attributed to Influenza.

At the meeting of the Academy of Medicine held on Oct. 17th M. Bezançon communicated a paper by himself and M. Israel de Jong. He reminded his audience of the former researches made by himself and his colleague which showed the extreme rarity of Pfeiffer's cocco-bacillus and the almost constant presence of the micrococcus catarrhalis, and of a micrococcus tetragenes in the patients who suffered during the epidemic in question. These observations, he said, had now been shown to coincide absolutely with those of other observers in different countries, notably in Berlin and Frankfort on the Main. It was therefore evident that the epidemic, although widely spread, had nothing to do

with influenza and these facts cast some doubt upon the specificity of the nosography of this latter complaint.

The Transmission of Cholera.

At the same meeting M. Chantemesse and M. Borel communicated an interesting paper on the mode of transmission of cholera. The paper dealt successively with transmission of cholera through long distances, the transmission from one town to another, and finally with the local spread of the disease. The transmission of cholera through long distances M. Chantemesse and M. Borel considered to be an extremely difficult question. For instance, it never seemed to arrive at Marseilles direct from India. A "relay" was necessary and this generally seemed to be a port on the Red Sea. The current epidemic began some four years ago in India and travelled slowly by land towards Arabia, Persia, Syria, and Russia, following a route which M. Chantemesse and M. Borel had mapped out with great exactness in a report published this summer. Some 4000 ships had been examined in the Suez Canal, representing 200,000 members of crews and 500,000 passengers. Cases of cholera, 29 in all, were found on 13 ships only and of these 29 18 were diagnosed on the morrow of their departure. The remaining cases were only discovered 17, 26, and 30 days later. These last are the cases in which danger lies, for they carry cholera germs to their port of disembarkation and show no symptoms of the disease. Even in these cases it is, however, necessary that they should disembark at a place where there is no sufficient inspection, such as Jeddah or Mecca, for in many instances when the patients have disembarked at a European port, where they are placed under strict surveillance, the disease has not spread. From one town to another the disease is mainly transmitted by the clothing or other effects of cholera patients. As for the local spread of cholera which is generally attributed to drinking water, this hypothesis will not explain all the circumstances. At Jeddah the garrison, whose drinking-water came from a pure and distant source and was certainly not infected on the way, contracted cholera quite as much as did the dwellers in the town who drank suspected water. Some carrier of the germ had, therefore, to be sought after the fashion of mosquitoes which carry yellow fever and malarial germs and this agent is probably flies, whose trunk and feet are easily infected from cholera stools, and so by the agency of these insects food and other household articles are infected. Exact experiments have enabled M. Chantemesse and M. Borel to prove that flies which had been in contact with cultures of the cholera bacillus were, even after an interval of 17 hours, capable of infecting sterile bouillon cultures. It is well known that Yambo, Bassorah, and other centres of cholera are plagued with flies, and the fly theory will also explain the arrest of the march of cholera during the cold season when the flies die (although the germs do not) and the recrudescence which takes place on the return of hot weather.

The Absorption of Tubercle Bacilli by the Freshly Shaved Skin.

At the meeting of the Society of Biology held on Oct. 21st M. Osman Nouri of Constantinople read a note in which he said that he had been enabled to inoculate the bacillus of Koch by simply rubbing matter containing it on the freshly shaved skin of the inguinal region of a guinea-pig. This method of procedure may be used in the laboratory instead of subcutaneous injection and it offers the advantage of avoiding the risk of death from septicæmia, which is so frequent after the subcutaneous injection of sputa or other matters.

Oct. 30th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Explanation of Sexual Questions to Children.

AT the last meeting of the Berliner Verein für Schulgesundheitspflege (the Berlin Association for Hygiene in Schools) the subject dealt with was the much contested question whether, and how, young people should be enlightened on sexual matters. The meeting being a public one it took place in the town hall and there was a large attendance of both members and visitors but no discussion was permitted. Four speakers following different professions were appointed to give their opinions. The subject was introduced by Dr. Kemsics who is connected with a public school for boys and is well known for his observations on overwork in schools, a summary of which was published some time ago in the *Deutsche Medizinische Wochenschrift*. He said that instruction on sexual questions was a matter for the school as well as for the medical attendant of the family. He began several years ago to give such instruction in connexion with the lessons on natural history. His method was to begin with plants, then he proceeded to the lower forms of animal life, and finally advanced to the mammalia, explaining their methods of propagation. As the pupils knew that human beings belonged to the mammalia they were in this way instructed as to the phenomena of procreation and parturition. Instruction in these matters should begin early rather than late, so as to prevent the younger children being depraved by others telling them obscene stories under the pretext of giving them necessary information. He mentioned the interesting fact that when the boys were asked whether they wished to hear something on sexual matters some replied that they feared they were still too young to understand the subject and some wished to have it explained by the teachers. They all declined to speak on it at home with their fathers and some even with a medical man, whilst none of them had the least objection to talk on these delicate questions with their teacher. The school must therefore endeavour to undertake this duty for the sake of the rising generation. The next speaker, Dr. Rosenthal, a specialist for venereal diseases, treated the matter from a medical point of view. He described the enormous spread of venereal diseases and said that instruction in sexual hygiene was the best preventive of this great danger to young men. Girls as well as boys should be made aware of the dangers to which they were exposed. He, however, objected to an early explanation of sexual matters, reserving it for the senior classes. General hygienic instruction with a special regard to sexual hygiene should be made a part of the lessons in biology. Much tact would be necessary in the matter and the instruction should be adapted to the comprehension of young persons without needless exposition of details. The best plan would be if the instruction could be given at home, but as this was impossible the teacher, the medical attendant, and the clergy must undertake this delicate task. Mme. Caner then pointed out that the progressist women's associations had been the first to succeed in making the question one for public discussion and she was glad to attend this meeting, for ten years ago it would have been impossible to discuss similar matters before a mixed audience of men and women. She said that from motives of old-fashioned prudery many mothers objected to their daughters being instructed in sexual hygiene. Such instruction was, however, a thing of the utmost importance, especially for women entering on the "struggle for life," in order that they might be warned against the dangers which they are liable to incur. The last speaker was a clergyman named Witte. He said that obscene books and periodicals had done much to deprave young people but he was also of opinion that their mischievous influence might be counteracted by sound instruction. The clergy would coöperate with other professions in this work. All the speakers agreed that though instruction in sexual matters must be given the practical application of the principle was very difficult.

The Study of Medicine.

The German Statistical Office has recently published statistics showing the number of students in the different faculties of the universities. According to these data the number of medical students has decreased steadily since 1887, the figures being 8513 in that year and 6232 in 1903. In each 1000 students of all faculties the medical students were 294 in 1890 and only 178 in 1903. It is interesting to see how the number of students in the different faculties has varied since 1893. In that year 13·32 per cent. of the students studied Protestant theology, 4·87 per cent. studied Roman Catholic theology, 24·91 per cent. studied law, 29·41 per cent. studied medicine, and 27·49 per cent. studied philosophy, the latter including also natural science, national economy, and history. In 1903 the proportions were as follows: Students of Protestant theology, 6·0 per cent.; of Roman Catholic theology, 4·43 per cent.; of law, 29·90 per cent.; of medicine, 17·83 per cent.; and of philosophy, 41·84 per cent. The *Deutsche Medizinische Wochenschrift* therefore observes that the warning against the study of medicine issued every year by the

Practitioners' Association and other medical bodies should now be discontinued. It is stated that there have lately been no candidates for appointments in some hospitals. Now that the medical curriculum has been made longer and therefore more expensive by the addition of the "practical year" it is to be expected that the number of medical students will decrease still more. At a recent meeting of the Society for Social Medicine Dr. Dietrich expressed the same view, pointing out that medical men actually had some difficulty in finding locum-tenents or qualified assistants. This was especially the case in the country districts because the great majority of practitioners preferred to settle in large towns and especially in Berlin where the overcrowding continued to be felt. He advocated the making of grants from the public funds to practitioners who were willing to settle in certain country districts.

Oct. 30th.

ITALY.

(FROM OUR OWN CORRESPONDENT.)

Dr. Baccelli on the Cure of Tetanus.

"Genova la Superba," true to her name, is for the moment the centre of Italian interest, enlarging her port in response to the requirements of a trade fed by Alpine railway tunnels and by commercial relations over sea, and, as the city of Columbus, Doria, and Mazzini, taking her "new departure" in presence of the King and Queen amid the salvoes of the French and British squadrons thundering forth the congratulations of France and the British empire. Coincidently with her *festa* she is entertaining the Italian Association of Internal Medicine now holding its Fifteenth Congress within her gates—another, and not the least eloquent, proof of Italy's "Risorgimento"—albeit saddened by the absence owing to illness of its two greatest ornaments, Professor De Giovanni of Padua, prime mover in the country's crusade against tuberculosis, and the Senator Guido Baccelli, its accomplished and many-sided President. The opening address which Dr. Baccelli was to have delivered in person was read from his manuscript by Professor Maragliano of the Genoese school, and though the Congress was again disappointed, expecting, as it did, a further exposition of Dr. Baccelli's views on the "Etio-genesis of Malaria"—that is, on the *essentia* of the disease as distinct from the *accidens* of its transmission—it found ample amends in the theme that took its place—the "Cure of Tetanus." Even before Hippocrates, according to Dr. Baccelli, the disease was well known and after his time there has never been a century or a school which did not attempt to work out the problem of its cure. Infinite as these attempts have been, statistics till the other day showed the mortality it caused to average between 80 and 90 per cent. But in 1885 that chief objective of the philosophical physician, the *inquisitio causarum*, found a fortunate votary in Nicolaier who succeeded in detecting the bacillus of tetanus and in defining its characteristics. This happy result of researches, ranging from Pasteur, Pollender, and Koch to Nicolaier, and extended by Löffler, Fränkel, Friedländer, and Weichselbaum (to cite but a few), had its counterpart in the Roman school which, having first established the doctrine of "auto-intoxication," and seen it confirmed by Albertoni of Bologna, "demonstrated that it was not the mere presence of pathogenic micro-organisms which wrought mischief and death, but also the toxic substances developed from their action and reaction in the *vie intime* of the organism and circulating in the blood. Furthermore, a study of the automatic defences of the organism, recognised by Hippocrates as 'natura medicatrix,' tended—besides the *avant corps* and the white cellules imprisoning the prime movers in the mischief—to demonstrate the 'antitoxins,' whence, working on parallel lines, it suggested the introduction through the veins of heroic medicaments, yielding the happiest results, of which this is not the place to speak." After this brief reference to his clinical researches and practice, Dr. Baccelli proceeded to describe his experiments with phenic acid, hypodermically introduced, in the neuralgic and "neuromo-algic" group of diseases—above all in sciatica and the various forms of neuritis—the favourable results of which induced him to employ the same agent in tetanus. "The antitetanic serums of Behring and Kitasato, of Tizzoni, and others had already failed in his practice, yielding as they did, even in the hands of their inventors, a mortality still very high, that of Behring being 44·6 per cent. and that of Tizzoni 30 per cent." On the other hand, the method by phenic acid, as applied by British and American physicians, out of 34 cases yielded only one fatal result; and, further, as applied by himself and others in the Italian schools the average mortality did not exceed from 9 to 10 per cent. Not only at the bedside has this result been attained but in the laboratory (notably by Babes of Bucharest) experiments on dogs, rabbits, and pigeons have shown the success of the phenic acid treatment. In conclusion, says Dr. Baccelli: "Convinced of the superiority of phenic acid over every other curative agent we have witnessed its power of inhibiting, or at least of diminishing, the reflex force of the tetanic infection on the spinal cord; we have recognised not only its antithermic but its antitoxic virtue, as well as the wonderful tolerance, in the most critical cases, with which it has been borne when injected daily in maximum doses of 1 gramme and 1·50 grammes. Indeed, we may formulate this axiom, that the tolerance of this heroic remedy stands in the direct ratio of its indication—an axiom which we can even affirm of the sublimate introduced into the veins for so many diverse diseases, comprising those which Professor Bozzolo of Turin has called the 'infections of masked origin' (*infezioni di origine nascosta*), corresponding, in part, to the 'cryptogenetic septicæmias of Leube.' We have thus a remedy, nearly perfect, for a lesion which in the American civil war of 1861–64 caused a mortality of 93 per cent. and in the Franco-Prussian war of 1870 a mortality of 90 per cent."

Oct. 28th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The late Professor Nothnagel.

AT a meeting of the Senate of the University of Vienna held on Oct. 19th, being the first meeting after the vacation, Professor Neusser delivered an address referring mainly to the loss which the medical profession had sustained by the decease of Professor Nothnagel. The reason why this address was so long deferred was because Professor Nothnagel died during the summer vacation when there was no session of the Senate. Professor Neusser, who was an intimate friend of the deceased, was able to depict a brilliant career of scientific work and material rewards, and to show how, in spite of an enormous strain of professional work, he was able to grapple with the difficulties of diagnosis in a classical way. He said that Professor Nothnagel's name would be for ever associated with the combination of symptoms now known as lymphadenia ossium, with the subjects of circulatory pains and tachycardia, and with diseases of the brain and intestines. His opposition to the "emancipation" of the female sex was due to the high esteem in which he held women, who for him were not truly feminine unless they fulfilled their destiny of being mother and wife. Like Schiller, the great German poet, he wanted woman to remain "pure, helpful, and good." Professor Nothnagel's idealistic opinions, therefore, brought him into opposition to prevailing views as regards the study of medicine. The address was received with profound interest, not only by the learned body to which it was chiefly addressed, but by hundreds of medical men living in Vienna.

Demonstrations in the Surgical Clinic.

An innovation has been introduced by Professor Hochenegg which, if ultimately successful, will materially aid practitioners in the diagnosis and treatment of surgical cases. It is intended to arrange on alternate Wednesday evenings surgical demonstrations, to which every qualified practitioner will be admitted without any charge at all. The place is very convenient, as the lecture hall of the second surgical clinic of the general hospital provides ample room for several hundred spectators. The object is not so much the demonstration of rare cases as to give illustrations of every-day practice, with short notes and advice as to diagnosis and treatment. Conducted in such a manner these evenings would not supplant but would supplement the meetings of the different medical institutions. Any discussion following an exhibition of cases would be replied to by the exhibitor. Nearly all the hospital surgeons and also those engaged in private practice have approved of the idea and the first meeting was held on

Oct. 25th. No doubt the surgical evenings will become a permanent institution. The practitioner, busy with professional routine work, is not always able to learn from books what the latest researches have made known and a verbal explanation is much easier and better for most purposes.

Pathogenesis and Treatment of Diabetes Insipidus.

This comparatively little-known disease was the subject of a paper read by Dr. Schmidt before the Clinical Society of Vienna. He said that two causes were mainly responsible for the quantity of the urine—namely, (1) increase of the arterial tension and of the velocity of the blood circulating in the kidneys, and (2) dilatation of the vessels of the same region. It was not likely that an increased chemical action due to special irritation of the parenchyma cells took place at the same time. As yet all descriptions of diabetes had the drawback of not exactly stating the blood pressure at the time in question. The changes producing polyuria, and polydipsia as well, could be looked for either in the nervous system, such as pathological changes in the cerebellum, in the medulla spinalis, or in the vagus nerve (tumours, hydrocephalus, apoplexy, cerebral shock, disseminated sclerosis, cerebro-spinal meningitis, section of the vagus at the throat, or pressure by an aneurysm of the aorta); or, secondly, in the action of diuretics or similar chemical agents producing a dilatation of the blood-vessels. Severe cachectic and anæmic diseases were also likely to produce polyuria, perhaps on account of the hydræmia always present in carcinomatosis, chronic phthisis, and pernicious anæmia. The treatment consisted generally in the exhibition of vaso-constricting remedies, such as secale cornutum, digitalis, strychnine, adrenalin, and the like. But the results were very unsatisfactory. Dr. Schmidt proposes another way. His idea is to produce hyperæmia in another but neighbouring region, especially in the mucosa of the intestinal canal and in the skin so as to relieve the renal capillary system. In three cases he prescribed an energetic purgative, consisting of one gramme of podophyllin, mixed with a sufficiency of powder and extract of rhamnus frangula, and divided into 40 pills, two of which were taken every evening. The purgation induced in this way acted as a counter-irritant and Dr. Schmidt succeeded in considerably benefiting his patients, so that they are now practically well. In cases which are able to sustain a sweating treatment by the use of the hot Turkish bath the relief obtained by the action of the sweat glands is still more marked, but care must be taken to ascertain that there is no atheroma of the vessels, degeneration of the myocardium, asthma nervosum, or tachycardia which would be contra-indications against such a radical procedure. The best results are obtained in polyuria combined with constipation and diminished perspiration.

The Treatment of Diseases of Children.

In the yearly report published by the Carolinen-Kinderspital (Children's Hospital) the further decrease of the death-rate of diphtheria is dwelt upon and is attributed chiefly to the use of antitoxic serum but quite a large number of cases seem to require intubation. It is difficult to say whether the method of O'Dwyer itself would not have been sufficient, as every case, even if only suspected, is immediately treated with Behring's serum. It is true that swabs are taken in every case and only those are registered as diphtheria where the bacillus is found, but some observers maintain that a bacteriological examination is not by itself a sufficient proof of the presence or absence of the disease. Among the other interesting matters there is the epidemic of cerebro-spinal meningitis, which was quickly subdued by lumbar puncture and the hot continuous bath. The distribution of milk for infants will be undertaken by this hospital and the work will commence shortly.

Oct. 25th.

CONSTANTINOPLE.

(FROM OUR OWN CORRESPONDENT.)

The Transmissibility of Bovine Tuberculosis.

Professor Dungern of the University of Freiburg, who is at present staying in the Turkish metropolis as a guest of his cousin, the German Ambassador, the Baron Marshall von Bieberstein, claims to have established definitely that bovine tuberculosis is transmissible not only to man but also to apes. Professor Dungern, who is the court chamberlain at Baden, has lived for a long while on the island of Sumatra where he devoted almost all his time to scientific investigation with regard to the transmissibilty of bovine tuberculosis to monkeys. The German Government has been lending him during these investigations all the necessary support. Professor Dungern will probably shortly publish the results of his extensive scientific labours. The Sultan has conferred upon the German professor the third class of the order *Osmanié*.

Turkish Coffee.

It is not generally known that much of the coffee consumed in the Ottoman Empire is imported from Brazil. Everybody supposes, speaking broadly, that Turkey is very rich in coffee. Now this is not the case. The coffee trade of the province of Yemen, whence the renowned Mocha is exported, has been on the decline for many years past, due mostly to the inefficient economical state of affairs as well as to the constant political troubles in Arabia. The irrigation system in Yemen, so necessary for the success of coffee plantations, is also far from being satisfactory. Thus it comes that Turkey, though itself one of the oldest mother-lands of exquisite coffee, gets the chief supply of it from Brazil. To remedy matters the Ottoman Government has begun to create coffee plantations in the provinces of Hedjaz, Lebanon, and Syria, the hot climate of which lends itself admirably to that purpose. Thus far the assiduous attempts have been successful and the Turkish newspaper *Sabah* is full of praise. It seems to be already in a position to prophesy that in a few years Turkey will be able to do without the Brazilian coffee.

A Sanatorium for Tuberculous Professors.

From Sofia comes the news that the confederation of Bulgarian professors has fixed in its budget for the current year the sum of 2000 francs, being the first instalment of a sum necessary for the construction of a sanatorium for professors and teachers suffering from tuberculosis. The Bulgarian Government has approved of the plan and has granted the first subvention of 5900 francs.

The Armenians and the Prisons.

All the prisons in the capital as well as in the provinces are at present overfilled with Armenian prisoners. The attempts of the latter to blow up some of the Governmental buildings and the Embassies have been the cause of innumerable arrests, whereby, of course, many an innocent person has had to suffer. The sanitary and hygienic conditions of the prisons are said to be atrocious. The air is pestiferous. Food is extremely scanty. Light there is almost none, even during the day. Hundreds of people are very frequently put together into one small room. Men, women, and children are, as a rule, confined together. The whole atmosphere is most demoralising. It is evident that the state of health of the prisoners must become, under such conditions, a most deplorable one. To remedy matters the Government has decided to build new prisons with more satisfactory sanitary arrangements. The effort to make the life of the prisoners more or less tolerable is, of course, a laudable one. I do not think, however, that the root of the evil will ever be removed by building new prisons. What is necessary is to better the political and economical state of the whole Ottoman Empire as well as its social conditions.

Dogs in Constantinople.

Several persons bitten by rabid dogs have been brought from the provinces to the Constantinople Institute of Hydrophobia. The results of treatment of these individuals have been, generally speaking, satisfactory. In the Ottoman metropolis itself hydrophobia is quite a rare occurrence in spite of the innumerable dogs which are to be found in every street and in every public place. These dogs are an extraordinary feature of Constantinople, characteristic of the Orient generally and of the Padishah's capital in particular. In one sense they are a boon to the city, being its most efficient scavengers. The most curious thing about them is their habit of forming communities which keep perfectly aloof from each other and inhabit their own particular districts. Many of the dogs present a most pitiful appearance.

Oct. 14th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Health Conditions among the Negroes.

THE negro question is constantly growing in importance as it is becoming more and more evident that the present tendency of the coloured race in the United States is not at all for the better, either physically or morally. In the South the industrious and thrifty Italian immigrants are steadily displacing the shiftless negro farmers, while life in the larger cities, especially in the North, is proving itself eminently unsuitable for the blacks. Booker T. Washington, a well-known negro educator, in a recent article said: "I do not believe that the masses of coloured people are yet fitted to survive and prosper in the great northern cities to which so many of them are crowding. The temptations are too great, and the competition with the foreign population with which they here come in contact is too fierce." The vicissitudes to which the negro in the North is subjected are graphically depicted in the death-rate of the race, which, especially for children, is exceedingly high. Thus it is estimated that the mortality from diphtheria among negro children is six times that among the white race, and the other infectious diseases kill from two to four times as many negroes as whites. The innate improvidence of the race keeps them as a whole in poverty, so that they are forced to live in districts in which both the sanitation and the morals are at the lowest ebb. Insanity is increasing rapidly among them, the recent report of the Central State Hospital at Petersburg, Virginia, showing an increase of 50 per cent. in the number of blacks in the Virginia asylums. This mental deterioration is ascribed to the physical conditions and degenerations due to lax, indolent, unhygienic, and immoral modes of life, and to heredity rather than to the effects of mental activity.

The Harvey Society.

In emulation of the societies in many European cities having similar aims "The Harvey Society" has been formed in New York for the purpose of bringing the laboratory worker and the general practitioner into closer touch. The active members of the society are all laboratory investigators, and the officers comprise Dr. Graham Lusk, Dr. Simon Flexner, Dr. Frederic S. Lee, Dr. George B. Wallace, Dr. C. A. Herter, Dr. S. J. Meltzer, and Dr. E. K. Dunham. A series of weekly Saturday evening lectures has been planned to be delivered at the Academy of Medicine by eminent investigators who will summarise the latest work in their respective fields, and to these all medical men are invited. The first lecture given on Oct. 7th by Professor Hans Meyer of Vienna was on the Theory of Narcosis, and the second was by Professor Carl von Noorden of Frankfort on Modern Problems of Metabolism.

Health of the Army.

The vital statistics of the United States Army show very favourable figures for the year ending June 30th. According to the annual report of Surgeon-General O'Reilly, which has recently been submitted, during this period there were 406 deaths from all causes, or 6·75 per 1000, while for the previous year the death-rate was 8·64 per 1000. The chief causes of death from disease were pneumonia, with a rate per 1000 of 0·65, tuberculosis 0·37, and typhoid fever 0·33. 59 cases of beri-beri, one of yellow fever, and one of leprosy are reported. There were 206 cases of gunshot wounds, with 44 deaths; 21 men were killed in action, 27 committed suicide, 45 met death by drowning, and 10 by homicide.

The Medical Schools.

Coincident with the elevation of the standards for admission there has been a rather marked decrease in the registration of students at most of the medical colleges. For example, at the Cornell University Medical College the first year class numbers only 120 instead of its usual average of 130, and at the Columbia University Medical School the entering class has only 79 members. At the latter institution some of the falling off is no doubt due to the increase in the yearly tuition fee from $200 to $250. At the Harvard Medical School radical changes have been made in the curriculum. The plan of study has been undergoing modifications since 1900, when the first stages of the present system were inaugurated. At that time during the first half year only anatomy and histology were taught and during the second half of the year all the time was given to physiology and physiological chemistry. The second year was divided in a somewhat similar way, only pathology and bacteriology being taken up during the first half, and the rest of the year being preparatory to the clinical work which was not begun until the third year and was continued through the fourth. At present the course remains unchanged for the first two years but all of the other prescribed work is put into the third year, while the courses of the fourth year are all elective. A minimum of 1000 hours is required of the fourth year student, but this time he may, under certain restrictions, apportion among the branches which he is most interested in. Certain groups have been arranged for those who contemplate a surgical career or general practice, but great freedom of choice is allowed provided the necessary 1000 hours of work are completed. The wisdom of so striking a departure from the rigidly prescribed courses of former years is yet to be seen but the step is in accord with the modern tendency that medical students should complete as many as possible of the preparatory studies such as chemistry, physics, biology, &c., before entering the medical school.

Death of Dr. Didama.

Dr. Henry Didama of Syracuse, N.Y., one of the most widely known physicians of New York State, died on Oct. 4th, at the age of 82 years, as the result of a fracture of the femur. Dr. Didama was the son of a prominent New Jersey practitioner and was for over 20 years one of the faculty of the School of Medicine of the University of Syracuse, later becoming dean emeritus of that institution. He was one of the founders of the New York State Medical Association and was for a time its president. He was strongly opposed to the use of alcohol and not only never prescribed it himself but is said even to have refused to attend those who drank alcohol or used tobacco.

Yellow Fever.

The yellow fever epidemic in New Orleans is practically at an end, for on Oct. 17th only three new cases and no deaths were reported. At Panama no cases at all have occurred since Oct. 1st. At the annual meeting of the American Public Health Association just held in Boston a committee of yellow fever investigators presented a series of preambles and resolutions relative to the yellow fever question, which were adopted by the society. These were to the effect that the experience gained in New Orleans had furnished further confirmation of the view that yellow fever is naturally transmitted only by the bite of an infected mosquito, that an efficient plan of defence against the propagation of the disease at the beginning of an epidemic can be easily established on this basis, and that understanding of the mosquito doctrine by the people and their prompt coöperation in reporting early cases are necessary to the successful carrying out of such a plan.

Typhoid Fever in New York State.

The morbidity from typhoid fever has been unusually high this year and the people are paying the penalty of their carelessness in regard to sewage disposal, which appears to be growing instead of diminishing. It is stated that a steadily increasing volume of sewage is pouring into the watercourses of the State so that practically all of them are contaminated and are therefore sources of infection. In view of these facts it is hardly surprising that from Jan. 1st to Oct. 1st of this year 60,000 cases of typhoid fever with 500 deaths have been reported in New York State. During August 12,000 deaths from all causes were recorded in the State, a number much in excess of the average, and 189 of these were from typhoid fever.

Oct. 25th.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

New Pay Rules for the Indian Medical Service.

A Government of India Home Department resolution is published regarding the pay of appointments in the Jail Department held by officers in the Indian Medical Service. The following scale of consolidated pay has been sanctioned: Inspector-General of Prisons, Madras and Bombay, Rs. 1800–50–2000 each; Bengal, Rs. 2000; United Provinces, Rs. 1800–50—2000; Punjab, Rs. 1800; Burmah, Rs. 1800; and Central Provinces and Berar, Rs. 1500. Superintendents first-class central jail and superintendents second-class central jails are paid as follows: Lieutenant-Colonels

(specially selected for increased pay), Rs. 1550 and Rs. 1450; Lieutenant-Colonels after 25 years' service, Rs. 1450 and Rs. 1350; Lieutenant-Colonels, Rs. 1400 and Rs. 1300; Majors after three years' service, Rs. 1050 and Rs. 950; Majors, Rs. 950 and Rs. 850; Captains after ten years' service, Rs. 850 and Rs. 750; Captains after seven years' service, Rs. 800 and Rs. 700; Captains after five years' service, Rs. 750 and Rs. 650; Captains, Rs. 700 and Rs. 600; Lieutenants, Rs. 650 and Rs. 550. This scale will take effect from April 1st, 1904, and officers already in the department may choose between the existing and the new scale also with retrospective effect.

The Destruction of Human Life by Wild Animals in 1904.

The mortality registered as due to wild animals in India during 1904 was 2157, against 2749 in 1903. In addition 21,880 deaths were entered as caused by snake bites, against 21,827 in the previous year. The number of cattle said to have been destroyed by wild animals was 88,206 and by snakes 10,376. Over a lakh of rupees is expended every year for the destruction of wild animals but only 16,122 were killed during 1904. It is reported that 65,378 snakes were also killed. Considering the number of licences which the Government is pleased to grant for the purpose of killing wild animals and the large number of instances in which the holders of licences apparently do not take advantage of their licence to kill wild beasts these figures are very unsatisfactory.

The Outbreak of Cholera in Madras City.

The cholera epidemic in Madras, which has been raging since July last, is abating. The average death-rate from cholera during August was over 50 a day but the returns for September showed about 30 a day. The cause of the epidemic has been traced to the emigration depôt in the north of the Black Town. It will be remembered that it was adjacent to this depôt that an outbreak of plague occurred last year and that it was only by prompt and very energetic measures that the danger of the outbreak spreading to the whole city was averted. Naturally there has been an outcry for the removal of the depôts beyond corporation limits.

The Increase in the Plague Mortality.

Plague is once more steadily gaining ground. For the week ending Sept. 23rd there were 3192 deaths recorded and a week later the mortality was increased to 4080. As heretofore, Bombay is taking the lead in the annual recrudescence and returns 2732 deaths, Madras 187, Bengal 179, Central Provinces 580, the United Provinces 60, the Punjab 30, Mysore 131, Hyderabad 143, and Central India 35. There are said to have been no deaths in Burmah but this is very doubtful, as 66 were recorded for the previous week. There is no mistaking the sinister signs of a coming storm. Nearly every province shows an increase and the increase has been regular now for several weeks past.

Oct. 11th.

Obituary.

GEORGE DANIEL SMITH, M.D. EDIN., M.R.C.P. EDIN.

Dr. George Daniel Smith of Kobe, Japan, died at his residence there on Sept. 11th after a long illness. He was born in 1852 at Stockton-on-Tees in the county of Durham where his relatives had their home until he and his brother commenced the study of medicine in the University of Edinburgh. This led to the whole family removing permanently to Edinburgh and Dr. Smith thenceforward for the most part lived in that city or its neighbourhood. After graduating in 1875 as M.B. and C.M. he was for a short time assistant to a medical man in the south of Scotland, and then settled in Bonnington, near Edinburgh, where he soon built up a good practice and was appointed medical officer to the school board of Leith. About four years ago a severe illness compelled him to retire from active work and on his recovery it was considered that if he resumed professional duties it must be in a milder climate. Just at this time an old friend of his, Dr. R. S. Miller of Kobe, required a substitute and Dr. Smith, having been induced to accept the position, continued to practise in Kobe until in March, 1905, he was again overtaken by illness. In the hope that the change might be beneficial the few remaining months of his life were spent in the hill climate of Karuizawa until he was brought back to Kobe in the end of August. In an obituary notice of him the *Japan Weekly Chronicle* of Sept. 14th says: "His death will bring sorrow to many of his old friends at home, as well as his newer friends out here, and their thoughts will go out in deep sympathy to Mrs. Smith, whose devotion during all his sickness has been untiring and whom death has now separated from a dear and honoured husband after nearly 25 years of married life."

WILLIAM JONES MORRIS, L.R.C.P. EDIN., M.R.C.S. ENG.

Mr. William Jones Morris of Portmadoc, Carnarvonshire, died in London on Oct. 15th in his fifty-seventh year. A native of Portmadoc, he studied medicine in the Glasgow schools and took the diplomas of M.R.C.S. Eng. in 1870 and L.R.C.P. Edin in 1872. He held a prominent position among the medical profession in North Wales and was at one time surgeon-major in the 3rd Volunteer Battalion of the Royal Welsh Fusiliers. Mr. Morris took an active interest in a variety of public, social, and political questions, possessed marked ability as a platform speaker in both English and Welsh, and was well known as a Freemason. He was chairman of the Portmadoc district council, a member of the Carnarvonshire education committee, a member of the council of the British Medical Association, and honorary secretary of the North Wales branch of the Association.

WILLIAM MARSHALL DAVIDSON, M.D. LOND., M.R.C.P. LOND.

Dr. William Marshall Davidson died at 25, Colville-terrace, London, W., on Oct. 19th. His medical education was received at St. George's Hospital, where as house physician, medical registrar, and anæsthetist to the hospital, he did excellent work and displayed much clinical insight. After leaving the hospital he practised for a time in London and subsequently for several years was resident medical officer to the Royal National Hospital for Consumption and Diseases of the Chest at Ventnor, where he was highly esteemed. From Ventnor he returned to live in London about two years ago. His death will be deeply regretted by all those who really knew him and appreciated the fine qualities of his character.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a Congregation on Oct. 26th the following medical and surgical degrees were conferred:—

M.D.—A. C. Dutt, Corpus; and W. G. P. Ellis, St. Catharine's.
M.B.—A. M. Simpson, King's; T. Drysdale, Jesus; and R. N. Hart, Sidney Sussex.
B.C.—T. Drysdale, Jesus; and R. N. Hart, Sidney Sussex.

An election to the Allen studentship for research in medicine, mathematics, natural science, or moral science will take place in the Lent term 1906. Candidates must be graduates under 28 years of age. The value of the studentship is £250.

UNIVERSITY COLLEGE, BRISTOL: FACULTY OF MEDICINE.—At the annual distribution of prizes in connexion with the Faculty of Medicine of University College, Bristol, on Oct. 28th, the following were awarded:—Lady Haberfield entrance scholarship, E. R. Holborow. Winter session.—Medicine prize, S. Rivington; certificates, P. Tomlinson, E. Herapath, and E. Christofferson. Surgery prize, W. King; certificate, S. Rivington. Public health prize, C. Rivington. Senior anatomy prize, C. Clarke; certificates, H. Templeton and L. Short. Junior anatomy prize, C. Joll; certificates, E. Holborow, T. Dixon, F. Nicholls, W. Ireland, A. Wigmore, and F. Morgan. Physiology—Part I.: prize, C. Joll; certificates, S. Kingston and F. Nicholls. Part II.: prize, C. Joll; certificates, P. Field, H. Templeton, R. Strachan, T. Dixon, E. Holborow, and T. Scott. Part III.: prize, R. Strachan; certificates, E. Holborow, T. Dixon, and P. Field. Biology prize, G. Hanington. Summer session.—Pathology and morbid anatomy prize,

J. Blackett; certificates, A. Wright, C. Rivington, and V. Green-Armytage. Medical jurisprudence prize, J. Blackett; certificates, V. Green-Armytage, C. Rivington, and P. Connellan. Midwifery certificate, A. Iles. Practical medicine, surgery, and midwifery prize, E. Connellan; certificates, A. Iles and P. Tomlinson. Chemistry prize, J. Hudleston; certificate, W. Reynolds. Materia medica prize, P. Field. Summer anatomy prize, C. Joll; certificate, E. Davies. Ophthalmology prize, J. Board. Clinical scholarships, prizes, and medals: Martyn memorial pathological scholarships, J. H. Board and P. Moxey. Tibbits memorial prize for practical surgery, A. J. Wright. Augustin Prichard prize for anatomy, A. J. Wright. Henry Clark prize (for third-year students), W. King. Suple surgical prize and gold medal, A. J. Wright. Henry Marshall prize for proficiency during dresserships, C. Rivington. Clarke scholarship (also for proficiency during dresserships), J. Avery, F. Bergin, and C. Rivington (equal). Crosby Leonard prize in surgery, V. Green-Armytage. Sanders scholarship for proficiency in medicine, surgery, and diseases of women, W. Pinniger. Special midwifery certificates, V. Green-Armytage and G. Parkinson. Committee gold medal (awarded to the student who has most distinguished himself during his student career), W. Pinniger. Committee silver medal (awarded to the next most distinguished student), A. Wright.

ASSOCIATION OF PUBLIC VACCINATORS OF ENGLAND AND WALES.—The annual meeting and dinner of the above association were held on Oct. 26th at the Midland Hotel, Manchester, Mr. E. C. Greenwood of London being in the chair. The meeting were held in the afternoon, the first item on the programme being the presentation of the sixth annual report. After this various papers were read dealing mainly with the question of the relations of public vaccinators to the public and to private practitioners respectively. This question has been an acute one ever since the passing of the Vaccination Act of 1898 and that it has lost none of its interest our columns constantly bear witness. The dinner was held in the evening in the banqueting hall of the Midland Hotel, the chief toast of the evening, that of the association, being proposed by the chairman and responded to by Mr. W. Holder and Dr. A. Drury. Not unnaturally the proposals of the departmental committee of the Local Government Board as to the reduction of public vaccinators' fees came in for some criticism. Dr. J. Brassey Brierley submitted the toast of "The Visitors," to which Alderman Sir James Hoy, Professor W. Stirling, Dr. J. Dreschfeld, Colonel Coates, C.B., and Mr. E. A. Gibson responded. Sir James Hoy, who spoke for the corporation of Manchester, said that in some cases, though not in all, he believed in the virtues of grumbling. Professor Stirling, in replying, said: "The Vice-Chancellor of Victoria University of Manchester has asked me to express his great regret that he is unable to be present with you to-night, a regret, I need not say, which I myself share. When I look round on this vast assembly I cannot but feel that Jenner, though we have progressed a large distance from his time, has a magnificent progeny. Jenner has laid down some broad scientific principles which have done for humanity more, perhaps, than all the surgeons and physicians. He has laid down, I mean to say, that principle which has enabled one to do more than to cure. The art of the physician is good; the art of the surgeon is also good; but infinitely finer is the art of the man who prevents. I have one regret in connexion with the visit of your great association to our city, and that is that you did not do us the honour in our medical school in our great University to find you a meeting place there. I can assure you that you would have experienced from all connected with that school a warm welcome. Should the hospitality of the north, should the kindly encouragement of Sir James Hoy, and should all that you have enjoyed here tempt you to do us once more the honour of coming to Manchester, I think I may say on behalf of the University authorities that they will be only too glad to extend you such privileges as they can. You will, I assure you, find a home at the University and we should be prepared to do everything to make your visit a success." Mr. E. Gibson, the city coroner, counselled the adoption of making vaccination and revaccination compulsory, together with the abolition of the conscience clause. The meeting was a great success and much praise is due to the efforts of the local secretary, Dr. F. P. Sarjant.

NOTIFICATION OF WHOOPING-COUGH.—The Newquay (Cornwall) urban district council has added whooping-cough to the list of diseases notifiable under the Infectious Diseases Notification Act.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—Miss Lawrence, lady superintendent of the Meath Home for Epileptics, Godalming, has been appointed lady superintendent of the National Hospital for the Paralysed and Epileptic.

NORTH DEVON INFIRMARY, BARNSTAPLE.—At the annual meeting of the ladies' association of this institution held on Oct. 25th it was reported that during the past 12 months £220 had been collected and goods worth £50 had been received. £129 had been subscribed to the "bed fund."

Frau Nathalie Ferchland, a female medical practitioner, has been appointed a surgeon to the Berlin police for the examination of female prisoners. It has been suggested that the female searchers employed in England might well be replaced by qualified medical women but the question of proper remuneration which would at once arise appears to stop any such development.

PRESENTATIONS TO MEDICAL PRACTITIONERS.—The members of the Newquay (Cornwall) Club, on Oct. 14th, presented Mr. Arthur Horace Gadsden, L.R.C.P. Lond., M.R.C.S. Eng. (the honorary secretary), with a silver salver, suitably engraved. The presentation was made by Sir Robert Edgcumbe.—The members of the class of St. John Ambulance Association, consisting of Great Western Railway employés at Paignton, Devon, on Oct. 16th, presented Mr. Bertram J. Collyer, L.R.C.P. Lond., M.R.C.S. Eng., with a travelling rug in appreciation of his services as honorary lecturer.

DONATIONS AND BEQUESTS.—Under the will of Mr. William Thomas Soudon Smerdon of Waverley, Bowdley, Ashburton, Devon, an annuity of £5 for 60 years is bequeathed to the Ashburton and Buckfastleigh Hospital.—Miss Katherine Elizabeth Hall of Bordighera, Italy, formerly of London, bequeathed £2500 to the Cancer Hospital, Brompton, £2500 to University College Hospital, and £2500 to the Hospital for Sick Children, Great Ormond-street.—By the will of Mr. Maxwell Armstrong of Dublin, the testator has left a sum of money in trust to pay £200 a year to the Adelaide Hospital, Dublin.—An anonymous gift of £5000 has been made for the extension of the Sheffield Royal Hospital, not on its present site in the centre of the city but in the suburbs. £500 have been promised also for furnishing.

THE METROPOLITAN ASYLUMS BOARD AND THE PRODUCTION OF ANTITOXIC SERUM.—At a meeting of the Metropolitan Asylums Board on Oct. 28th the hospitals committee submitted a report in connexion with the work of producing antitoxic serum for the treatment of diphtheria, the work hitherto having been carried out by the Royal Colleges of Physicians of London and Surgeons of England. The committee was able to report that after nine months' trial the results of the new departure were in all respects satisfactory. The demands of the infectious hospitals for serum and bacteriological investigations had been promptly met and a considerable saving of cost had been effected under the new system. The net expenditure incurred, excluding the cost of refrigerating plant, was £2537. The cost of antitoxin worked out at 6¼*d.* per dose of 1000 units as compared with an average charge for the four years to Dec. 31st, 1904, of 10*d.* per dose, the reduced cost being chiefly accounted for by the utilisation of the services of the bacteriologists. Taking all the circumstances into its consideration the committee felt justified in recommending the Board to sanction the necessary steps being taken for continuing the work on a permanent footing. The recommendation was agreed to subject to the assent of the Local Government Board.—At the same meeting the fever returns for the fortnight ending Thursday, Oct. 26th, showed that 1283 persons suffering from fever had been admitted into the various hospitals of the Board; of these, 47 had died and 939 had been discharged recovered. The number remaining under treatment was 5189, being an increase of 297 compared with the previous fortnight. Of the total number 4246 were suffering from scarlet fever, 786 from diphtheria, and 157 from enteric fever. During the past four weeks there has been no cases of small-pox admitted.

BOOKS, ETC., RECEIVED.

APPLETON, SIDNEY, London.

The Diagnostics of Internal Medicine. By Glentworth Reeve Butler, Sc.D., M.D., Chief of the Second Medical Division, Methodist Episcopal Hospital; Attending Physician to the Brooklyn Hospital; Consulting Physician to the Bushwick Central Hospital. Second revised edition. Price 25s. net.

The Diseases of Infancy and Childhood. For the Use of Students and Practitioners of Medicine. By L. Emmett Holt, M.D., Sc.D., LL.D., Professor of Diseases of Children in the College of Physicians and Surgeons (Columbia University), New York. Third edition, revised and enlarged. Price 25s. net.

BAILLIÈRE, J. B., ET FILS, 19 Rue Hautefeuille, Paris.

Traité d'Hygiène. Publié en Fascicules sous la Direction de MM. P. Brouardel et E. Mosny. I. Atmosphère et Climats. Par J. Courmont, Professeur d'Hygiène à la Faculté de Médecine de Lyon, et Ch. Lesieur, Chef des Travaux d'Hygiène à la Faculté de Médecine de Lyon. Price Fr.3.

BAILLIÈRE, TINDALL, AND COX, 8, Henrietta-street, Covent Garden, W.C.

The Nature and Treatment of Cancer (Some Methods of Hypodermic Medication in the Treatment of Inoperable Cancer). By John A. Shaw-Mackenzie, M.D. Lond. Second edition, revised and enlarged. Price 2s. 6d. net.

A Treatise on the Parasites and Parasitic Diseases of the Domesticated Animals. By L. G. Neumann, Professor of the National Veterinary School of Toulouse. Translated by George Fleming, C.B., LL.D., F.R.C.V.S. Second edition. Revised and edited by James Macqueen, F.R.C.V.S., Professor at the Royal Veterinary College, London. Price 21s. net.

CAMBRIDGE UNIVERSITY PRESS WAREHOUSE (C. F. CLAY, Manager, Fetter-lane, E.C.).

Histological Studies on the Localisation of Cerebral Function. By Alfred W. Campbell, M.D., Pathologist to the Asylums Board of the County of Lancaster. Published by aid of a subsidy from the Royal Society of London. Price 18s. net.

CASSELL AND COMPANY, LIMITED, London, Paris, New York, and Melbourne.

Organotherapy, or Treatment by Means of Preparations of Various Organs. By H. Batty Shaw, M.D. Lond., F.R.C.P., Lecturer in Therapeutics, University College, London, Assistant Physician to University College and to the Hospital for Consumption and Diseases of the Chest, Brompton. Price 6s.

CLAUSEN, CARLO (HANS RINCK, Succ.), Via Po. 11, Torino.

Come si Evita e si Cura la Tubercolosi. Del Dott. E. de Silvestri, Medico dell'Ospedale Cottolengo di Torino. Price L.7.50.

COLLINGRIDGE, W. H. AND L., *City Press* Office, 148 and 149, Aldersgate-street, E.C.

The City Diary, 1906. Forty-third year of publication. Price 1s. Interleaved with blotting paper.

DRUK K. KOWALEWSKIEGO, Mazowiecka, 8, Warszawa.

Wydawnictwo Gazety Lekarskiej. Metody Badania i Miejscowego Leczenia Chorób Krtani. Przez D-ra. T. Herynga. Price Rb.3. kop.50.

F. A. DAVIS COMPANY, 1914-16, Cherry-street, Philadelphia.

Practical Massage in Twenty Lessons. By Hartvig Nissen, Instructor and Lecturer in Massage and Gymnastics at Harvard University Summer School; Director of Physical Training, Brookline Public Schools; Author of "Swedish Movement and Massage Treatment." Price, extra cloth, $1.00 net.

HEINEMANN, WILLIAM, 21, Bedford-street, W.C.

Medicine and the Public. By S. Squire Sprigge, M.A., M.D. Cantab. Price 6s. net.

JACK, T. C. AND E. C., 34, Henrietta-street, London, W.C., and Edinburgh.

Organic Evolution. (Shilling Scientific Series). By C. W. Saleeby, M.D., Author of "The Cycle of Life," "Evolution the Master Key," &c. Price 1s. net. Heredity. By C. W. Saleeby, M.D. Price 1s. net.

JARROLD AND SONS, Limited, London and Exchange-streets, Norwich, and 10 and 11, Warwick-lane, London, E.C.

Souvenir of Sir Thomas Browne. With Twelve Illustrations, and Notes by Chas. Williams, F.R.C.S.E., Norwich. Price 2s. 6d. net.

J. B. LIPPINCOTT COMPANY, Philadelphia and London.

The Principles of Clinical Pathology. A Text-book for Students and Physicians. By Dr. Ludolf Krehl, Ordinary Professor and Director of the Medical Clinic in Strasburg. Authorised translation from the third German edition. By Albion Walter Hewlett, M.D., Instructor in Clinical Medicine at the Cooper Medical College, San Francisco, Cal. With an Introduction by William Osler, M.D., Professor of Medicine at the Johns Hopkins University. Price 21s. net.

Therapeutics: its Principles and Practice. By Horatio C. Wood, M.D., LL.D. (Lafayette, Yale, Pennsylvania), Professor of Materia Medica and Therapeutics in the University of Pennsylvania, Member of the National Academy of Science. Twelfth edition. Thoroughly revised and adapted to the eighth (1905) edition of the United States Pharmacopœia. By Horatio C. Wood, jun., M.D., Demonstrator of Pharmacodynamics in the University of Pennsylvania. Price 18s. net.

Psychiatry. A Text-book for Students and Physicians. By Stewart Paton, M.D., Associate in Psychiatry, the Johns Hopkins University, Baltimore, Director of the Laboratory, the Sheppard and Enoch Pratt Hospital, Towson, Maryland. Price 18s. net.

Photographic Atlas of the Diseases of the Skin. Physicians' Edition. In four volumes. By George Henry Fox, A.M., M.D., Professor of Dermatology, College of Physicians and Surgeons, N.Y., Consulting Dermatologist to the Department of Health, New York City, Physician to the New York Skin and Cancer Hospital. Vol. II. Price 25s. net.

LEWIS, H. K., 136, Gower-street, W.C.

Movable Kidney. A Cause of Insanity, Headache, Neurasthenia, Insomnia, Mental Failure, and Other Disorders of the Nervous System. A Cause also of Dilatation of the Stomach. By C. W. Suckling, M.D. Lond., M.R.C.P., Consulting Physician to the Queen's, to the Children's, and to the Orthopædic and Spinal Hospitals, Birmingham. Price 10s. 6d. net.

LONGMANS, GREEN, AND CO., 39, Paternoster-row, E.C.

Hygiene. By J. Lane Notter, M.A., M.D., Chairman of Council and Examiner to the Royal Sanitary Institute, Examiner in Public Health to the Universities of Cambridge, Manchester, and Liverpool; and R. H. Firth, Lieut.-Colonel, Royal Army Medical Corps, Professor of Hygiene in the Royal Army Medical College, Member of Council and Examiner to the Royal Sanitary Institute. Sixth edition. Price 4s. 6d.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ALFORD, E. F. R., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

BARKER, WALTER HERBERT, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Superintendent at the Hospital for the Insane, Kew, Victoria, Australia.

BARNARD, CHARLES EDWARD, M.D. Aberd., has been appointed Acting Officer of Health of the Shire of Creswick, Victoria, Australia.

BIGGS, GEORGE, M.B., B.S., L.S.A., has been appointed Clinical Assistant to the Chelsea Hospital for Women.

BLACK, G., M.B., B.S. Aberd., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Hailsham District of the County of Sussex.

BLACKHAM, R. J., L.R.C.P. & S. Edin., L.F.P.S. Glasg., D.P.H. Lond., has been appointed an Examiner to the St. John Ambulance Association.

BURGESS, ARTHUR H., F.R.C.S. Eng., M.B., M.Sc. Vict., has been appointed Surgeon to the Manchester Children's Hospital, Pendlebury.

CURRAN, E. TEMPLE, has been appointed Medical Officer for the Second District by the St. Columb (Cornwall) Board of Guardians.

DAISH, W., M.D. Melb., has been appointed Honorary Medical Officer of the Dubbo Hospital, New South Wales.

FLETCHER, D., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Harris District of the county of Inverness.

GARDNER, J. C., M.B., B.S. Cantab., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Amersham District of the county of Buckingham.

GODFREY, CLARENCE GEORGE, M.R.C.S. Eng., L.R.C.P. & S. Edin., has been appointed Medical Superintendent at the Hospital for the Insane, Ararat, Victoria, Australia.

KINNEAR, FORBES, M.B., Ch.B. Aberd., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Royton District of the county of Lancashire; and Surgeon to the Police for Royton and Shaw, near Oldham.

MACFADDEN, CECIL J. R., M.D. Edin., has been appointed an Honorary Assistant Medical Officer to the Hampstead General Hospital.

MATCHETT, ANWYL CHARLES, M.B., C.M. Edin., has been appointed District Medical Officer by the Bridgwater (Somerset) Board of Guardians.

MORRIS, J., M.R.C.S., L.R.C.P. Lond., has been appointed Resident House Surgeon to the British Hospital, Buenos Ayres.

MULLEN, WILLIAM LOWELL, M.D. Melb., has been appointed Medical Superintendent at the Hospital for the Insane, Yarra Bend, Victoria, Australia.

MURRAY, GEORGE LATHROP, M.B., M.Ch. Syd., has been appointed Government Medical Officer and Vaccinator at Portland, New South Wales.

O'BRIEN, JOHN ALOYSIUS, M.B., Ch.M. Glasg., has been appointed Inspector of Institutions under the Inebriates Act, 1904, for Victoria, Australia.

OWEN, ARTHUR GEOFFREY, M.B. Melb., has been appointed Officer of Health of the Shire of Hampden, West Riding, Victoria, Australia.

ROBINSON, FRANK, M.D. Vict., D.P.H., has been appointed Assistant to the County Medical Officer, West Riding of Yorks.

ROSS, G. W., M.R.C.S., L.R.C.P. Lond., has been appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

SCRASE, FRANK E., F.R.C.S. Eng., D.P.H., has been appointed an Honorary Assistant Medical Officer to the Hampstead General Hospital.

SOMERVILLE, J. W., M.D. Edin., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Galashiels District of the county of Selkirk.

TELLING, W. H. MAXWELL, M.D., B.S. Lond., M.R.C.P. Lond., has been appointed Honorary Assistant Physician to the General Infirmary, Leeds.

WAUGH, R. J., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Assistant Medical Superintendent at the Fulham Infirmary, Hammersmith, W.

WOODSIDE, ROBERT NEVILLE, M.B., Ch.B. Melb., has been appointed Officer of Health of the Shire of Gordon (eastern portion), Victoria, Australia.

WRIGHT, THOMAS NISBETT, L.R.C.S. & P. Irel., L.M., has been appointed Government Medical Officer and Vaccinator at Gloucester, New South Wales.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BARRA PARISH COUNCIL.—Medical Officer. Salary £119 per annum.
BELGRAVE HOSPITAL FOR CHILDREN, Clapham-road, S.W.—Senior and Junior Resident Medical Officers for six months. Honorarium at rate of £20 and £10 a year respectively, with board and lodging.
BETHNAL GREEN INFIRMARY AND WORKHOUSE.—Assistant Medical Officer.—Salary at rate of £100 per annum, with apartments, board, and washing.
BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon, unmarried. Salary £150 per annum, with rooms, fire, lights and attendance.
BRADFORD ROYAL INFIRMARY.—Surgeon unmarried. Salary £100 per annum, with board and residence.
BRENTFORD UNION INFIRMARY AND WORKHOUSE, Isleworth.—Assistant Medical Superintendent and Medical Officer, unmarried. Salary £120 per annum, with apartments, rations washing, &c.
BRIGHTON, SUSSEX COUNTY HOSPITAL.—House Physician, also Third House Surgeon, both unmarried. Salary of former £70 and of latter £50 per annum, with board and residence.
BRISTOL ROYAL INFIRMARY.—House Surgeon. Salary £100 a year, with apartments board, and laundry.
BRISTOL DISPENSARY.—Two vacancies on Medical Staff.
CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn-road, W.C.—Honorary Second Assistant Anæsthetist.
CLAYBURY, ESSEX, LONDON COUNTY ASYLUM. Junior Assistant Medical Officer. Salary £150 per annum, with board, apartments, and washing.
GLASGOW, STOBHILL GENERAL HOSPITAL, Springburn.—Resident Senior Assistant Medical Officer. Salary £150 per annum (rising to £300), with board and apartments.
GLOUCESTER, GENERAL INFIRMARY AT, AND GLOUCESTER EYE INSTITUTION.—House Surgeon. Salary £100 per annum, with board, residence, and washing.
LIVERPOOL, ROYAL SOUTHERN HOSPITAL.—Junior House Surgeon.
MAIDSTONE, KENT COUNTY OPHTHALMIC HOSPITAL.—House Surgeon. Salary £100, with board and residence.
MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Assistant Surgeon.
MANCHESTER VICTORIA MEMORIAL JEWISH HOSPITAL.—Honorary Medical Officer.
MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £80 per annum, with board, attendance, and washing.
NATIONAL DENTAL HOSPITAL, Great Portland-street, W.—Medical Superintendent. Honorarium £120 per annum. Also Anæsthetist as Deputy.
NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Bethnal Green, E.—Medical Officer in Charge of Electrical Department. Salary £50 per annum.
NOTTINGHAM GENERAL HOSPITAL.—House Surgeon. Salary £100, rising to £120, with board, lodging, and washing.
POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Senior House Surgeon. Salary £135 per annum, with board and residence.
ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Junior Obstetric Assistant (female). Board, lodging, and washing provided.
ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, Plaistow, E.—Resident Medical Officer. Salary £100 per annum, with board, residence, and laundry.
SOCIETY OF APOTHECARIES OF LONDON.—Gillson Scholarship in Pathology. Value £40, tenable for one year.
SOUTH LAMBETH, STOCKWELL, AND NORTH BRIXTON DISPENSARY, Wilkinson-street, Albert-square, Clapham-road.—Vacancy in Visiting Medical Staff.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of vacancies as Certifying Surgeons under the Factory and Workshop Act at Portmadoc in the county of Carnarvon, and at Dalkeith in the county of Edinburgh.

Births, Marriages, and Deaths.

BIRTHS.

ANTROBUS.—On Oct. 24th, at The Chase, Great Malvern, the wife of Edmund Antrobus, M.D. Edin., D.P.H. Cantab., &c., of a daughter.
O'KINEALY.—On Oct. 28th, at Darjeeling, India, the wife of Major F. O'Kinealy, I.M.S., of a daughter.
OLIVER.—On Oct. 29th, at The Gables, Maidstone, the wife of Charles Pye Oliver, M.D. Lond., D.P.H., of a son.

MARRIAGE.

MARTIN—BABINGTON.—On Oct. 28th, at the Church of St. John the Divine, Kennington, by the Rev. Canon C. E. Brooke, M.A., vicar, assisted by the Rev. J. H. Wesley Kane, M.A., vicar of St. George, Perry Hill, Francis John Hensley, M.R.C.S. Eng., L.R.C.P. Lond., late of Perim Island, Arabia, second son of Captain W. R. Martin, R.N., of Catford, to Nellie, younger daughter of George F. Babington, of Marlow, Holmdene-avenue, Herne Hill, London.

DEATH.

GIBBES.—On Oct. 25th, at Linden-road, Bexhill-on-Sea, Francis Richard Gibbes, M.R.C.S., late of Northallerton and Anerley, S.E., aged 83.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

CHRISTIAN SCIENCE AGAIN.

AN inquest was held on Oct. 28th by the coroner for the Kingston division of Surrey upon the body of Robert Stephen Pirie, aged 28 years, a school teacher who had died from "consumption" at Richmond while under the care of Harold Boardman, a "Christian Science practitioner." The father of the deceased gave evidence as to his son being very ill and as to how he had insisted upon going to Boardman for treatment in spite of his family's objection. Boardman took the patient to Richmond and requested his parents not to visit him. This was about the middle of October and the parents did not visit their son until a few days before his death, which occurred on Oct. 26th. Boardman's landlady said that a medical man was sent for just before Pirie died, but when he arrived the patient was dead. Boardman in evidence said that he considered that God was the only doctor. In examination he said that God could heal a broken bone but that Christian Scientists thought that until man knew more about God it was better to leave such cases to the surgeons. Mr T. W. Goldney, M.R.C.S. Eng., said that death was due to consumption. Life had been past saving for some time but it could have been prolonged by proper treatment. A verdict of "Death from natural causes" was returned and Boardman was strongly condemned for not having sought medical advice sooner. Such stories make sad reading in these days of more or less scientific enlightenment. True, it was by the expressed wish of the deceased that he spent his last days unsuccoured by medical aid and perhaps he also acquiesced in the mumbo-jumbo of Mrs. Eddy taking the place of the ministrations of his parents, but Boardman none the less displayed ignorant cruelty in letting him die without medical treatment. There is one point to be said in Boardman's favour. According to his own account his fees only amounted to 10s. per week, which cannot be considered excessive if, as apparently it did, the 10s. covered board and lodging as well as Christian Science.

THE BRITISH ALMANAC.

To the Editors of THE LANCET.

SIRS,—Our attention has been drawn to a letter in THE LANCET of Sept. 23rd asking you "to make such representations" to us "as would prevent the appearance" of certain names in the list of "Celebrities of the Day" inserted in the above almanac. Your correspondent omits to say why your interposition is regarded as necessary and we can assure him that had he communicated with us direct his views would have received every attention. The words objected to refer to four individuals out of something like 600 and occupy half a dozen lines. The list consists of about 14 pages of 78 double lines each, or a total of over 2000. It includes artists, sculptors, politicians, military and naval men, poets, authors, architects, and others, and has been before the public in its present form for years, yet not a single complaint has ever before reached us.

The words objected to so far as we understand are as follows:—A. An authority on disorders of the digestion. B. An authority on antisepsis and the treatment of wounds. C. An authority on nervous disorders and diseases of the brain. D. An authority on hernia and peritonitis. Now, Sirs, we suppose "Who's Who" may be taken as a volume which should satisfy your correspondent; on reference to that publication we find as follows: A. A good number of lines advertising his work, including "Disorders of Digestion." B. The same, including "Antiseptic Surgery, its Principles, Practice, History, and Results." C. The same, including "Functions of the Brain," "Cerebral Localisation," &c. D. This name is not mentioned in "Who's Who." In one case *every publication is given in full*—a most excellent advertisement—in the other, *a few words* summarising the fact that the individual has made a study of certain features.

Had your correspondent communicated with us direct we might have taken a different view, but as he has preferred to cast aspersions upon an old-established (seventy-eighth year) and respectable publication through the press we must respectfully decline to make any alteration, and trust, Sirs, you will give to this letter the same prominence that you have to that of your correspondent.

We are, Sirs, yours faithfully,
London, S.E., Oct. 27th, 1905. CHARLES LETTS AND CO.

AN EIGHTEENTH CENTURY "DOCTOR'S BILL"

HAD they been preserved, the "doctors'" bills of past generations of our ancestors would now prove instructive both to patients and to medical men. An old-world doctor's bill dating from 1763 to 1773 is before us which seems to have been incurred by a small, well-to-do, and fairly healthy family of Highland origin at that time resident in Glasgow. The document was till lately in the possession of a descendant of this family and has reference to patients of one Robert Wallace, surgeon. Of him we know only this, that he was one of those typical eighteenth century practitioners who were paid not so much for services as for drugs supplied. Thus, in the bill "blooding" or venesection is never specifically charged for though it is always mentioned. "A clyster bag and pipe" seem

also to have counted in the category of clinical attendance and to have been applied free of charge. On the other hand, we find such items as 1s. 6d. for "a glass with a mixture to child," and 6d. each for "a blister for neck," a "healing plaister," a "vomit," a box of ointment, and "a glass with physick." At times materials for the making up of a medicine are set down. Thus there is a charge of 2s. for "stomackick materials for wine." The bill covers the period of a decade, is two folio pages long, and contains upwards of 80 entries. Some years show a clean bill of health, others doubtless mark the occurrence of juvenile ailments, but it is impossible to infer from the entries what Mr. Wallace's patients suffered from. The supply of drugs for the decade amounts to a sum of £4 4s. 7d. and £2 16s. are "allowed for attendance," presumably for frequent "bloodings." The total is thus £7 0s. 7d. and we note that it was not paid till 1776. The form of receipt is leisurely and explicit. It runs: "Received payment of the above, which with all precedings is hereby discharged by Robert Wallace."

THE OBLIGATION ON A MEDICAL MAN TO ANSWER A CALL.

ON Oct. 23rd an inquest was held at Sheffield by the coroner, Mr. D. Wightman, upon the body of Mary Anne Page, aged 38 years, the wife of a labourer living in Jenkinson-street. Death was due to cerebral hæmorrhage. At the inquest Mr. Page stated that he went for a medical man on the night of Oct. 20th but that he refused to come without his fee being paid in advance. The money was obtained and then the medical man attended the case. Mr. Page acknowledged that the delay did not make any difference in his wife's case. The coroner is reported as saying that if a medical man described himself as a surgeon people thought that he ought to respond to a call and so did he (the coroner). Many medical men, however, lived in districts where people were not wealthy and they attended a great many cases and received no remuneration. They were justified in not attending such cases, although it might seem hard to say so. We have said again and again that medical men are always willing to attend promptly whether they are paid or not if the case is described to them as urgent. But a medical man does not practise his profession for love, it is his means of living, and there is no class that does so much gratuitous work as the medical profession.

A REPUDIATION.

To the Editors of THE LANCET.

SIRS,—We notice that our names appear in a review of a medical book in the *Birmingham Gazette and Express* of Oct. 24th and that the name of one of us again appears in the same paper to-day in an article dealing with a medical subject. We take this opportunity of stating that our names have been so inserted without our previous knowledge, permission, or authorisation and that we strongly object to reviews of medical books appearing in lay papers.

We are, Sirs, yours faithfully,

LEONARD GAMGEE,
Birmingham, Oct. 26th, 1905. ALBERT LUCAS.

To the Editors of THE LANCET.

SIRS,—In the columns of the *Birmingham Gazette and Express* of Oct. 24th is a review and on the following day an extended notice of a book written by Dr. C. W. Suckling on "Movable Kidney." As my name appears in both issues of the paper I wish to state that I am in no way responsible for the discussion of this matter in the lay press and that my name has been introduced without my knowledge or approval. I am, Sirs, yours faithfully,

Birmingham, Oct. 30th, 1905. GILBERT BARLING.

MISSING COPIES OF "ANNALS OF SURGERY."

To the Editors of THE LANCET.

SIRS,—I am anxious to make up my set of "Annals of Surgery" to the present date. There are some copies which I am in want of but they are, unfortunately, out of print. The numbers are January, April, and May, 1905. It occurs to me that I might through your courtesy and the medium of your columns be able to secure these numbers and if you can make my wishes known I should esteem it a great favour.

I am, Sirs, yours faithfully,

Oct. 31st, 1905. A. H. TUBBY.

CANARDS FROM BRAINTREE.

NOT long ago a fertile brain invented a plague of rats for the little country town of Braintree in Essex. Braintree and its adjoining hamlet, Bocking, were described in lurid terms in several journals as being overrun with packs of enormous rodents and it is a fact that to some extent the town suffered by these stories. We had the pleasure of contradicting them and we must now contradict another Braintree yarn. Certain lay papers have been telling the interesting story of a female patient who has been lying in the infirmary at Braintree in a condition of prolonged trance. On coming to herself with the ministrations of medical men she was reported to have said that it was not the first time that it had occurred, and altogether the story as we read it was a most circumstantial one and also a most improbable one. So we wrote to a leading medical man of the neighbourhood who has replied to us as follows: "The trance lady is a big gooseberry, perhaps originating from the same fertile brain as the Braintree rats." The invention of such stories seems to be to no one's advantage and, as in the case of the rat rumour, may actually damage the public. The pleasure of gulling a certain number of confiding editors must be so mild a one as to be hardly regarded as a motive. Like Mr. Crummles, and with better reason, we "wonder who puts these things into the newspapers."

M.D. Cantab.—As the story is told to us the position looks like one of covering but we have not sufficient evidence to say anything more definite.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. (3.30Thomas's P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (3 P.M.).

TUESDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (2 P.M., Ophthalmic, 2.15 P.M.).

WEDNESDAY (8th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.), Children, Gt. Ormond-street (9.30 A.M., Dental, 2 P.M.).

THURSDAY (9th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.), Children, Gt. Ormond street (2.30 P.M.).

FRIDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.).

SATURDAY (11th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

FRIDAY (3rd).—SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—8.30 P.M. Paper:—Dr. B. J. Collingwood: Dosage and Methods of Administration of Chloroform.

TUESDAY (7th).—PHARMACEUTICAL SOCIETY OF GREAT BRITAIN (17, Bloomsbury-square, W.C.).—8 P.M. Lecture:—Sir G. Watt: Shellac. Paper:—Mr. J. C. Umney: Chemistry and Analysis of Shellac.

WEDNESDAY (8th).—DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Meeting.

SOUTH-WEST LONDON MEDICAL SOCIETY (Bolingbroke Hospital, Wandsworth Common).—8.45 P.M. Dr. G. L. hastes: Urine—the Interpretation of its Analytical Results.

HUNTERIAN SOCIETY (London Institution, Finsbury-circus).—8.30 P.M. Pathological Evening.

THURSDAY (9th).—HARVEIAN SOCIETY OF LONDON (St. Mary's Hospital).—8.15 P.M. Cases shown. 8.45 P.M. Discussion.

CHILDHOOD SOCIETY AND THE BRITISH CHILD-STUDY ASSOCIATION (Parkes Museum, Margaret-street, W.).—8 P.M. Lecture:—Dr. M. Friedeberger: Speech Training of Feeble-minded Children. (Arranged by the Childhood Society.)

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-quare, W.).—8 P.M. Specimens will be shown by Dr. H. Macnaughton Jones and Prof. J. W. Taylor. Paper:—Dr. S. Savage: Hæmatoma of the Ovary and its Pathological Connexion with the Ripening and Retrogression of the Graafian Follicle.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-square, W.).—8 P.M. Card Specimens will be shown by Mr. A. H. Thompson and Dr. E. C. Taylor and Mr. E. J. Smyth. 8.30 P.M. Papers:—Dr. J. B. Nias and Mr. L. Paton:

The Value of the Opsonic Index for Tubercle in Phlyctenular Conjunctivitis (preliminary note).—Mr. C. Worth: Hereditary Influence in Myopia.—Mr. Nettleship: (1) Notes on some Varieties of Albinism; (2) Colour Blindness in Women.—Dr. A. J. Ballantyne: A Case of Metastatic Sarcoma of the Optic Nerve Head and Retina.

FRIDAY (10th).—INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH (1, Upper Montague-street, Russell-square, W.C.).—8 P.M. Paper:—Dr. C. Childs: A Comparative Study of the Lincoln, Maidstone, and Worthing Epidemics of Typhoid Fever. Followed by a Discussion.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION (11, Chandos-street, Cavendish-square, W.).—4 P.M. Cases will be shown by Mr. C. Nourse, Dr. W. Wingrave, Mr. S. Lowe, and Dr. A. Wylie. Presidential Address.

CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Dr. F. H. Hawkins: Case of Suppurative Pylephlebitis connected with a Suppurating Mesenteric Gland.—Dr. C. W. Chapman: After-history and Post-mortem Record of a Case of Obstruction of the Inferior Vena Cava.—Mr. G. Simpson: A Successful Case of Splenectomy for Rupture of the Spleen.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (6th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. H. G. Adamson: Clinique. (Skin.) 5.15 P.M. Dr. E. Cautley: Vomiting in Children as a Symptom and its Treatment.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. R. J. Reece: State Medicine.

TUESDAY (7th).—ROYAL COLLEGE OF PHYSICIANS OF LONDON (Pall Mall East).—5 P.M. Dr. G. R. Murray: Exophthalmic Goitre and its Treatment. (Bradshaw Lecture.)

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. W. Carr: Clinique. (Medical.) 5.15 P.M. Dr. F. J. McCann: The Treatment of Dysmenorrhœa.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Moullin: Intra-pelvic Hæmorrhage.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury, W.C.).—3.30 P.M. Clinical Lecture:—Mr. Ballance: Surgery of the Nervous System.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Dr. G. N. Meachen: Demonstration of Selected Skin Cases.

WEDNESDAY (8th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. M. Collier: Clinique. (Surgical.) 5.15 P.M. Mr. J. Pardoe: The Treatment of Chronic Urethritis.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Beddard: Practical Medicine.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (North-Eastern Fever Hospital, St. Ann's-road, N.).—2.30 P.M. Dr. F. M. Turner: Demonstration on Fevers.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. J. J. Perkins: Syphilitic Disease of the Respiratory Tract.

UNIVERSITY COLLEGE, LONDON (Gower-street, W.C.).—Clinical Lecture:—Dr. Blacker: Acute Nephritis of Pregnancy.

THURSDAY (9th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Mr. L. Williams: The Therapeutics of Some Common Ailments.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Davis: Heart Disease—Cardiac Murmurs—Diagnosis and Treatment.

HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Lecture:—Dr. Batten: The Treatment of Acute Infectious Diarrhœa in Children.

SAMARITAN FREE HOSPITAL FOR WOMEN (Marylebone-road, N.W.).—3 P.M. Lecture:—Dr. Lockyer: Pregnancy and Ovarian Tumours.

CHARING CROSS HOSPITAL.—4 P.M. Dr. Routh: Demonstration of Gynæcological Cases. (Post-Graduate Course.)

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—6 P.M. Dr. M. Dockrell: Tuberculosis of the Skin—I., Lupus Vulgaris; II., Tuberculosis Verrucosa Cutis; III., Scrofuloderma. (Chesterfield Lecture.)

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—5 P.M. Lecture:—Dr. T. N. Kelynack: Demonstration of Pulmonary Cases. (Post-Graduate Course.)

WESTMINSTER HOSPITAL MEDICAL SCHOOL (University of London) (Caxton-street, Westminster, S.W.).—5 P.M. Lecture:—Dr. B. Abrahams: Applied Physiology. (Lecture V.)

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Lecture:—Mr. J. Cantlie: Malaria, its Parasites and Treatment.

FRIDAY (10th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. A. Lawson: Clinique. (Eye.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Practical Surgery.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury, W.C.).—3.30 P.M. Clinical Lecture:—Dr. Ferrier: Cases in the Wards.

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(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 2nd, 1905.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks
Oct. 27	30·15	W.	0·03	78	56	35	48	50	Cloudy
,, 28	30·17	S.W.	..	75	55	39	40	41	Cloudy
,, 29	29·66	W.	0·25	81	56	41	51	53	Raining
,, 30	29·30	S.W.	0·03	66	54	41	50	53	Cloudy
,, 31	29·23	S.W.	0·24	83	65	44	45	47	Fine
Nov. 1	29·23	E.	0·09	57	53	46	50	50	Raining
,, 2	29·21	S.W.	0·38	57	52	48	47	49	Cloudy

During the week marked copies of the following newspapers have been received: *Poor Law and District Council Journal (Dublin), Dublin Times, Birmingham Post, Surrey Advertiser, Notts Guardian, Dublin Express, Local Government Chronicle, Mining Journal, The Scotsman, Evening News, Liverpool Mercury and Journal, Oban Times, Ilford Recorder, Daily News, Star, Warminster and Westbury Journal, Westminster Gazette, &c.*

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